COMPRO TECHNOLOGY

Network Camera

User's Manual

V151-101203

Model No. **IP55**
IP60
IP70

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Notices
This manual is only intended for the users of Compro IP55, IP60, and IP70 network camera, and is applicable for firmware release 1.51. The camera appears on the cover of this manual is a IP60 which differs with IP55 and IP70 in appearance.
Before starting using the camera, please read and follow the steps below to protect your IP camera.

- Please place the IP camera on a level surface and out of direct sun shine.
- Please keep the IP camera indoors and away from water, dust, humidity or magnetic products.
- Please do not drop the IP Camera body to the floor; it may cause the damage to main parts.
- Please do not disassemble or remodel the product; it may cause damage or fire.
- Do not shake, move or disturb the IP camera when it is in operation, as such actions may result in the malfunction of the device.
- Power off the IP Camera as soon as it is found smoking or smelt unusual.
- Please do not place the IP Camera around the heat sources, such as television or microwave oven.

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Chapter 1: Product Overview

Package Contents

Please check the package contents on your hand. If anything is missing, please don't hesitate to contact your local distributor.

Figure 1-1. Parts list

1. Network Camera
2. RJ-45 LAN Cable
3. Power Adaptor
4. Quick Start Guide
5. Installation CD
6. Mounting Screw x 3 /Screw Mount x 3

Features

The camera is an easy-to-install product for the indoor fixed camera solution. Its support of the H.264/MPEG-4/MJPEG video compression format helps achieve superior performance and high video quality in small recording file size, which means a much lower cost for data storage. Utilizing smart motion detection and built-in 2-way audio for fast and easy communications, The camera ensures instant responses when security is compromised. The camera also comes with a built-in MicroSD slot for local image storage.

IP55 Full Feature List

- 1/4" CMOS Megapixel sensor
- Supports real-time MPEG-4 and MJPEG compression (Dual Codec)
- Supports dual streams simultaneously
- Support 10x digital zoom
- Video resolution is up to 1280 x 1024 pixels
- Image frame rate is up to 30 frames under 640x480 or 15 frames under 1280 x 1024
- Smart motion detection
- Two-way audio with built-in MIC and speaker
- Support UPnP (universal plug and play)
- Support 10/100 802.3/Ethernet
- 802.11b/g/n WLAN on applicable model (Optional wireless adaptor)
- Digital I/O for External Sensor and Alarm (2 In/1 Out)
- Supports local storage (MicroSD/SDHC), Snapshot
- Easy to Install with IP camera Wizard
- Remote Monitoring on 3GPP mobile phones or phones with web browser (e.g. iPhone/BlackBerry)
- Bundled powerful 32-channel IP video management software --- ComproView

IP60 Full Feature List

- 1/3" CMOS Megapixel sensor
- Supports real-time H.264, MPEG-4 and MJPEG compression (Triple Codec)
- Supports dual streams simultaneously
- Support 10x digital zoom
- Video resolution up to 1280 x 1024 pixels
- Image frame rate up to 30 frames at 640x480 or 15 frames at 1280 x 1024
- Smart motion detection
- Two-way audio with built-in MIC and speaker
- Supports UPnP (universal plug and play)
- Supports 10/100 802.3/Ethernet
- 802.11b/g/n WLAN on applicable model (optional wireless adaptor)

- Digital I/O for External Sensor and Alarm (2 In/1 Out)
- Supports local storage (microSD), Snapshot
- Easy to Install with IP camera Wizard
- Remote Monitoring on 3GPP mobile phones or phones with web browser (e.g. iPhone/BlackBerry)
- Bundled powerful 32-channel IP video management software --- ComproView

IP70 Full Feature List

- 1/3" CMOS Megapixel sensor
- Day and night functionality with mechanical IR cut filter switching
- Built-in IR lamp with light sensor
- Supports real-time H.264, MPEG-4 and MJPEG compression (Triple Codec)
- Supports dual streams simultaneously
- Support 10x digital zoom
- Video resolution is up to 1280 x 1024 pixels
- Image frame rate is up to 30 frames under 640x480 or 15 frames under 1280 x 1024
- Smart motion detection
- Two-way audio with built-in MIC and speaker
- Supports UPnP (universal plug and play)
- Supports 10/100 802.3/Ethernet
- 802.11b/g/n WLAN on applicable model (Optional wireless adaptor)
- Digital I/O for External Sensor and Alarm (2 In/1 Out)
- Supports local storage (microSD), Snapshot
- Easy to Install with IP camera Wizard
- Remote Monitoring on 3GPP mobile phones or phones with web browser (e.g. iPhone/BlackBerry)
- Bundled powerful 32-channel IP video management software --- ComproView

Application Diagram

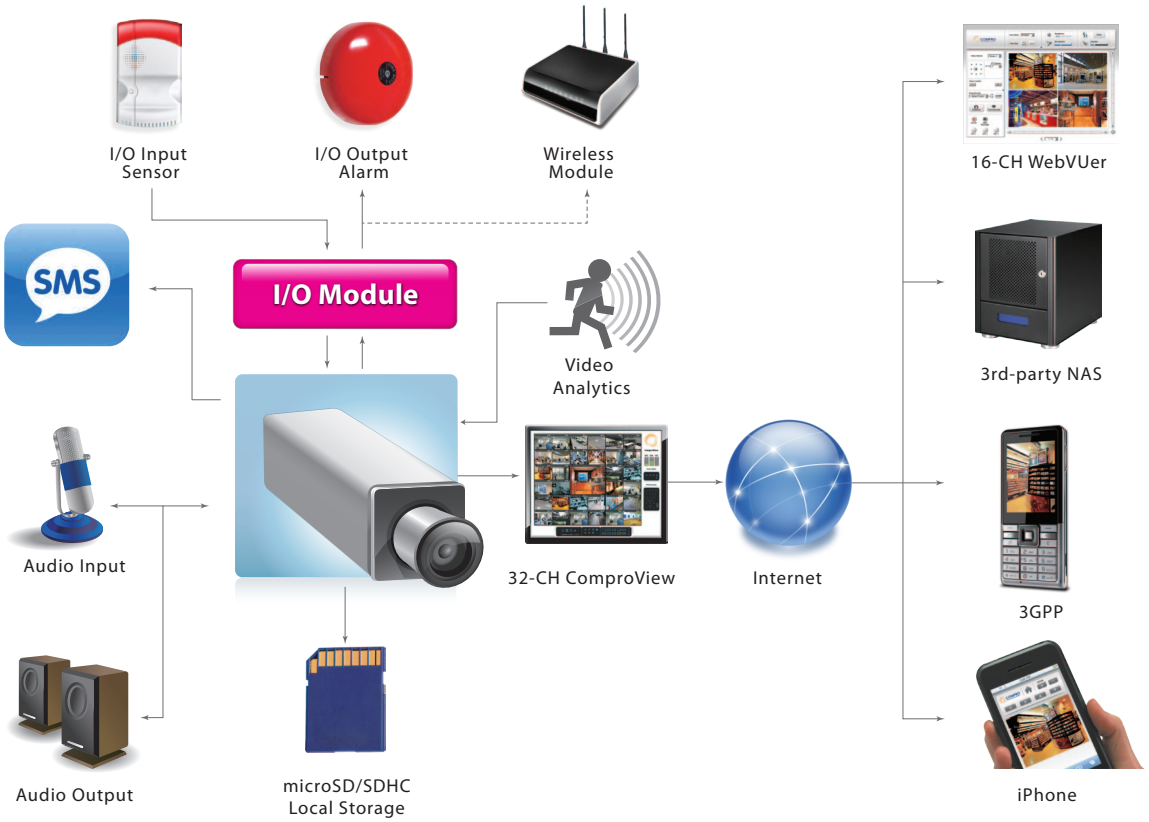


Figure 1-2. Application diagram

Camera Layout

For the IP55 and IP60 camera.

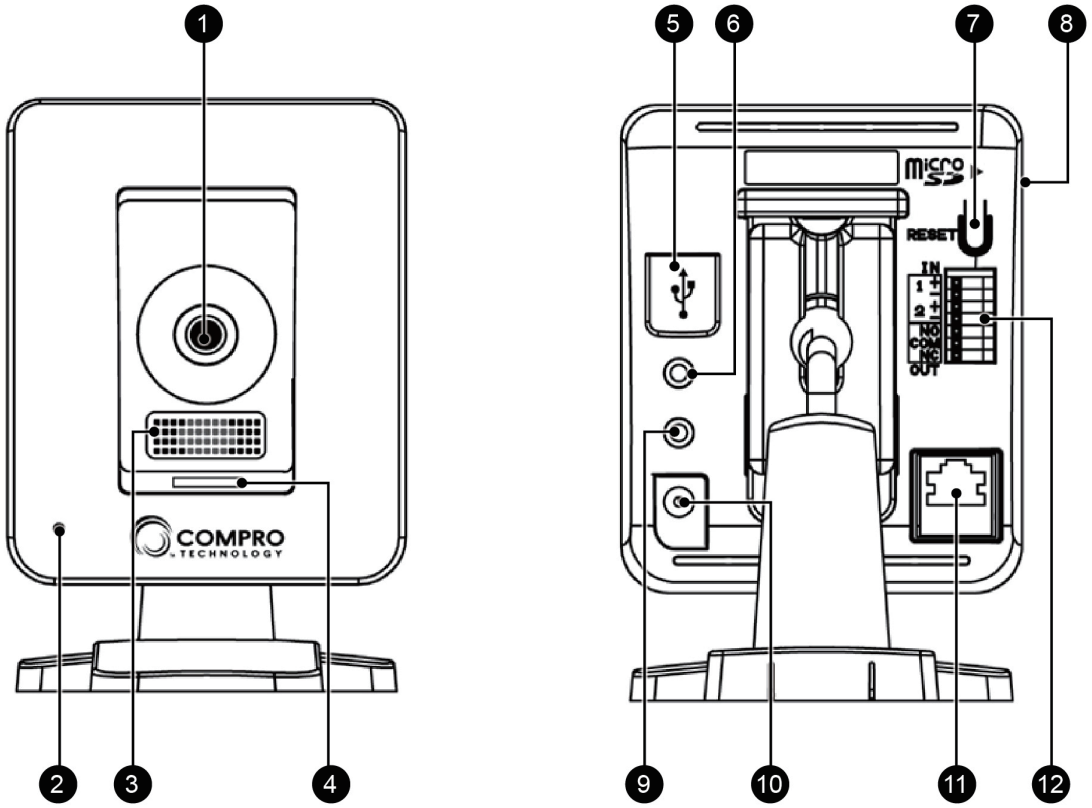


Figure 1-3. Front and rear view of IP55/IP60

1. Lens
2. Microphone
3. Speaker
4. LED status indicator
5. Wireless adaptor connector (USB type)
6. Audio Output
7. Reset Button
8. MicroSD card slot (on the side)
9. Microphone Input
10. Power connector
11. Ethernet Port
12. I/O port (2 in / 1 out)

For the IP70 camera.

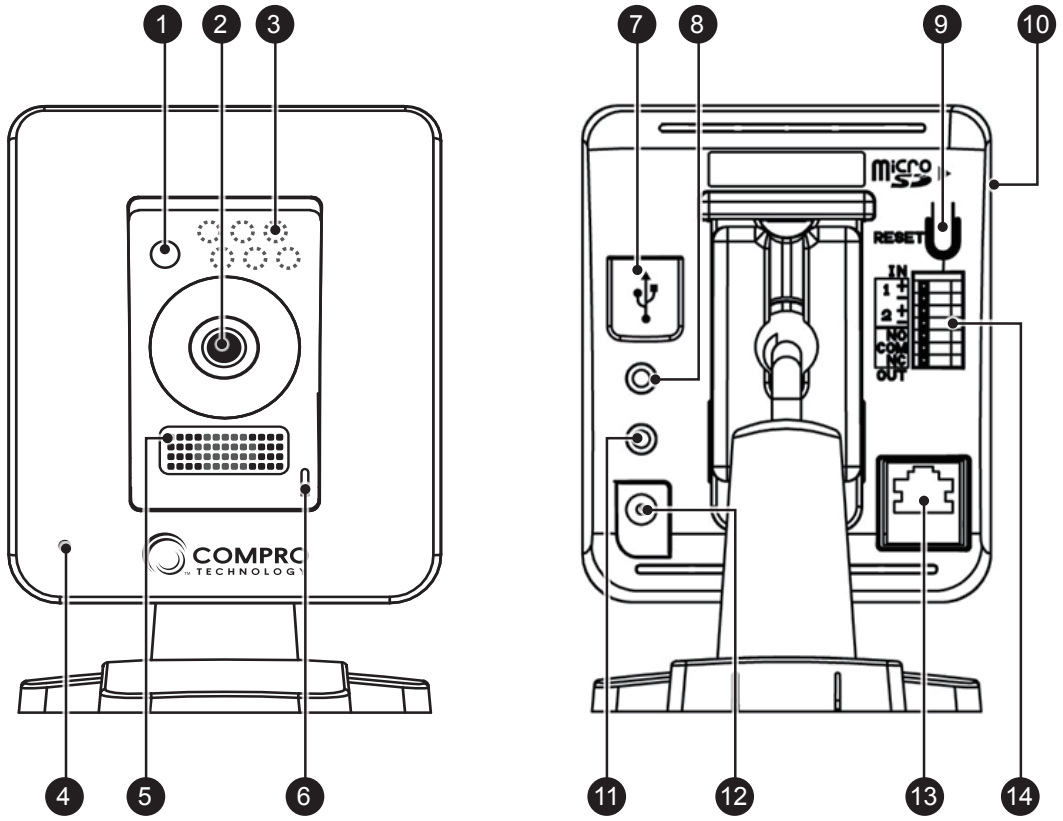


Figure 1-4. Front and rear view of IP70

1. Light sensor
2. Lens
3. IR Lamp x 6 (inside,)
4. Microphone
5. Speaker
6. LED status indicator
7. USB Wireless adaptor connector
8. Audio Output
9. Reset Button
10. MicroSD card slot (on the side)
11. Microphone Input
12. Power connector
13. Ethernet Port
14. I/O port (2 in / 1 out)

LED Status Indicator

When you power on the camera, it will start booting procedure. There are one blue LED and one red LED inside the camera case. Depending on the booting status, the LED indicator will be lit in the followings way:

1. About 25 seconds after powering on the IP camera, both the blue LED and red LED indicator will become lit (appears purple).
2. About 35 seconds after powering on the IP camera, the red LED will be turned off.
3. Camera trying to connect to network: both blue & red LED flashing at an interval of 0.5 second.
4. Camera established connection: blue LED constantly on (Red LED off)
5. Camera failed to connect: flashing red LED. (Blue LED off)

Red LED	Blue LED	Indication
On	On	System booting up
Off	On	Successfully established network connection
On	Off	Performing hardware test
Off	Off	Powered off
Blinking (every 0.5 sec.)	Off	Failed to connect to network / failed to establish a WPS connection
Off	Blinking (every 0.5 sec.)	Attempting to establish a WPS connection
Off	Blinking (every 0.2 sec. in a 3-second period)	Successfully established a WPS connection
Blinking (every 0.5 sec.)	Blinking	Attempting to establish network connection

Table 1-1. LED status

Figure 1-5. Normal connection

Digital I/O Connector Block

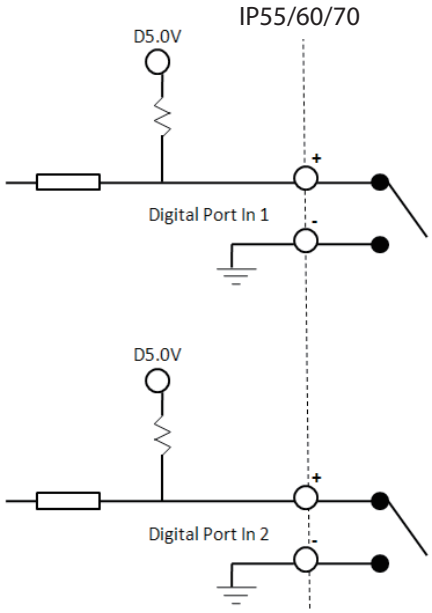
The I/O connector on the back of the camera provides a central interface between your home security system and various output devices.

The two digital inputs are normally used with security sensors, e.g. passive infrared sensors (PIR), smoke detectors, door/window sensors, etc. They work by detecting a change in the state of open and closed circuit. You can check the status of the circuit in [Setup] > [Event Setup] > [I/O Status].
The output port is normally used to trigger external audio or visual indicators, e.g. sirens or strobe lights, etc.

Pin	Name	Specifications	Note
1 – 4	Digital Input Ports 1 & 2	Max 5VDC, 60mA	Floating, TTL
5 - 7	Digital Output Port	Max 24VDC, 1A or Max 125VAC, 1A	You can only use either the Normally Open (NO) or Normally Closed (NC) at any given time.

Table 1-2. Buttons in recording history

Digital In Ports



Digital Out Port

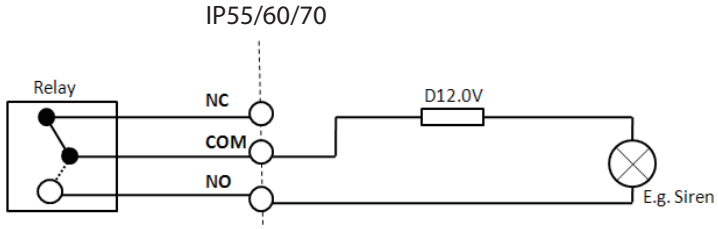


Figure 1-6. Front and rear view

Notice!
The above output scenario is where the siren will only sound when the input has been triggered. Should you wish to use the opposite way in which the output device keeps staying on until the input has been triggered, please use NC.

Chapter 2: Installation

Connecting the Cables

The picture below shows the basic connection of your IP camera.

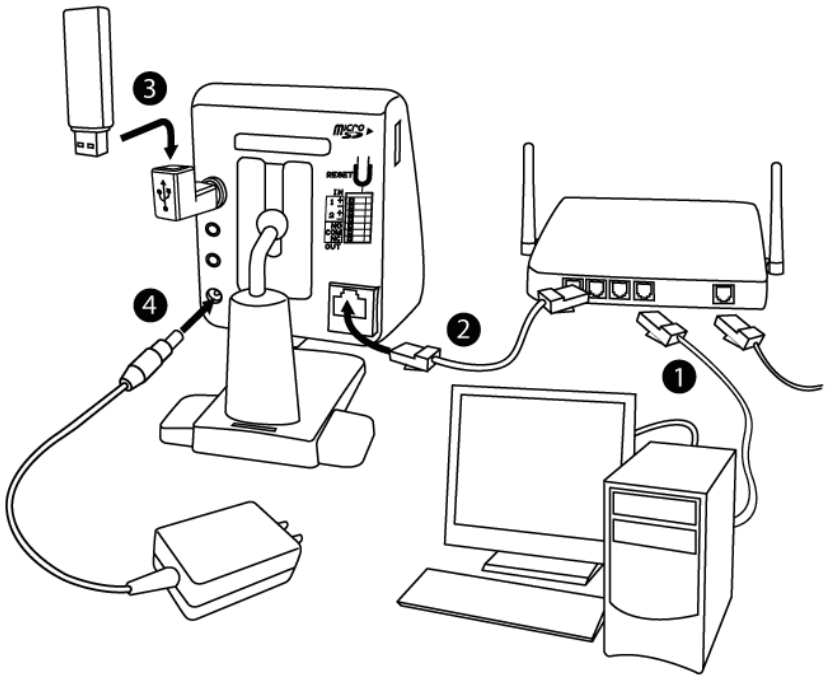


Figure 2-1. Connection of cables

1. **LAN cable from PC to hub/router:** If your LAN cable from PC has been connected to the Cable/ADSL modem, please re-connect it to the Ethernet port of your hub/router.
2. **Ethernet port on camera:** Use the bundled RJ-45 LAN cable to connect the Ethernet port of the IP camera to the Ethernet port of your hub/router.
3. **Wireless adaptor (Optional accessory):** If you have purchased the Compro USB wireless adaptor for wireless connection, please plug it into the USB port of IP camera for wireless reception.
4. **Power:** Attach the power adaptor to the camera's power connector and connect the power plug to a power outlet.

Caution!
The wireless connection port only supports the wireless adaptors from Compro; please do not use other USB adaptors on Compro IP camera.

Wireless Connection

With the Compro wireless adaptor installed, you can also opt for using the wireless connection. Please keep in mind that you can only have one active connection at a time, either through LAN or wireless network.

If you connect the IP camera to the Intranet, then the same group of users can share the access of IP camera. Please also ensure that the wireless adaptor has been securely fastened, or it could lead to unstable connection.

Caution!

- The operation of the wireless network may be interfered should there be other 2.4GHz devices working in the vicinity, e.g. microwave oven, digital cordless camera, etc. You may experience slow frame rate or drops of connection; in such situation, we suggest you try moving the IP camera away from the area or turning off other appliances.
- Since wireless cameras can cause interferences on transmission, you may encounter erratic behaviors when there are more than 10 cameras operating in close proximity.
- The default wireless connection method uses 802.11n standard and you should experience a stable connection on your camera within 20 meters of the access point. However, your wireless performance may vary depending on the operating environment, building material, etc.

Disassembling and Assembling the Camera Stand

The camera is already installed on the camera stand when delivered from Compro. If you need to disassemble and assemble the stand, please refer to the pictures below.

Disassembly

Please use a flat blade screwdriver to disassemble.

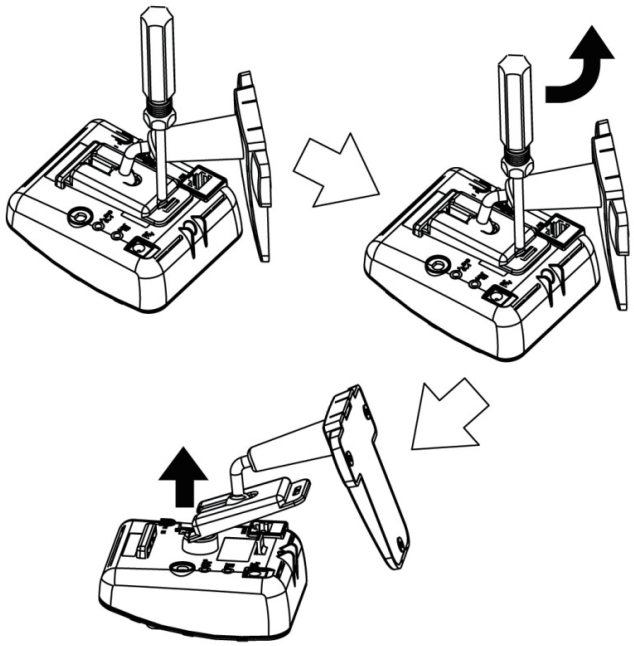


Figure 2-2. Disassembly of camera stand

Assembly

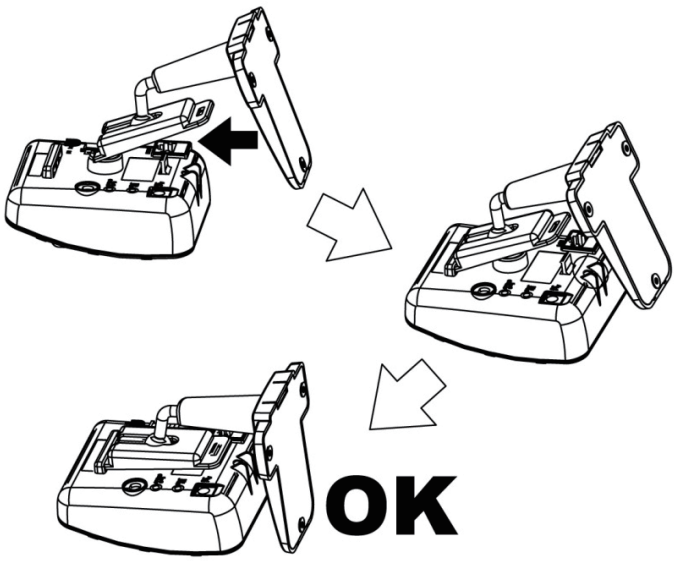


Figure 2-3. Assembly of camera stand

Mounting the Camera

If you want to mount the camera on the wall or ceiling, please use the screws to fix the bracket to a flat surface. After the bracket is fixed to a flat surface, please try to adjust the camera to the desired viewing angle. Follow the steps below to mount the camera.

Step 1 - Detach the metal mounting plate from the base of mounting bracket by inserting a flat blade screwdriver into the rectangular hole seen on the wide end of the bracket base and then pressing the screwdriver downward.

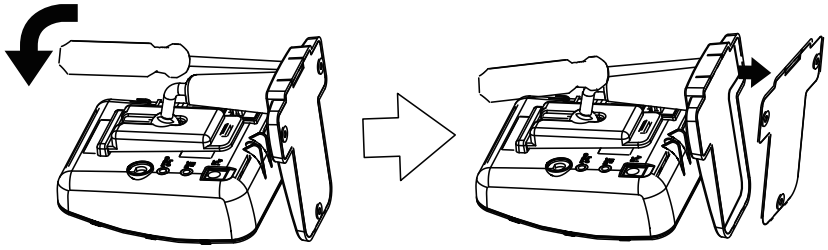


Figure 2-4. Detaching mounting plate

Step 2 - Place the side of the mounting plate that has protruding screw holes against the mounting surface. Screw the mounting plate into the mounting holes on the mounting surface. And secure the bracket to the mounting plate by clicking the plate into its position, as shown in the point 1 and 2 of the figure below.

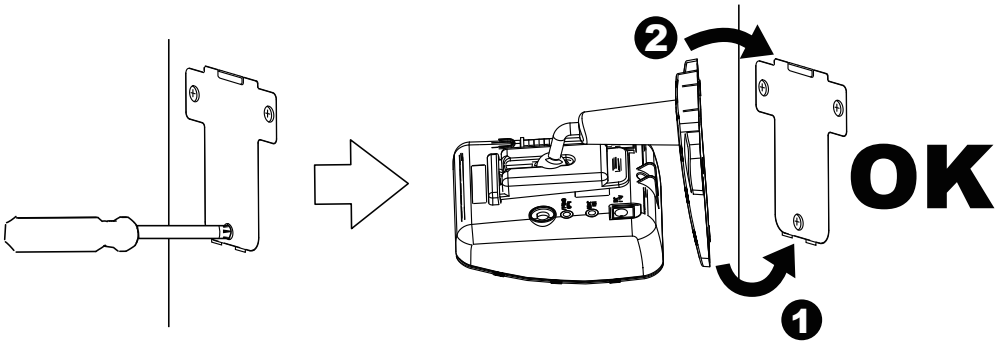


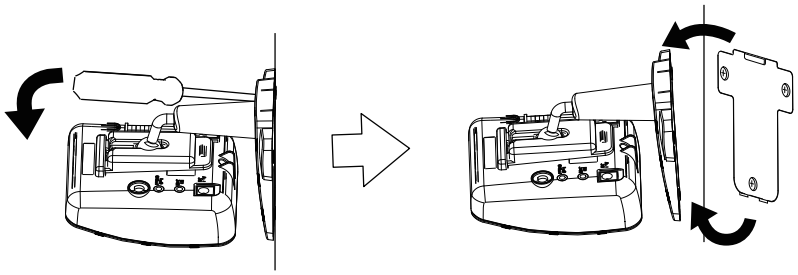
Figure 2-5. Mounting the camera

Caution!
If the power cable and the network cable connected to the camera are not securely fastened (as shown below), it could lead to unstable connection.

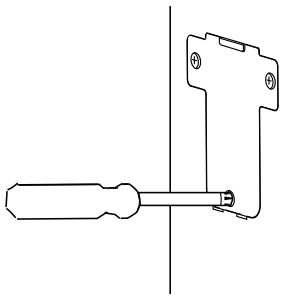
Dismounting the Camera

If you like to remove the mounted camera from its mounting surface, prepare one flat blade screwdriver and one Phillips screwdriver, and then follow the instruction below to dismount the camera.

Step 1 - Detach the plastic mounting bracket from the metal mounting plate that has been screwed on the mounting surface, by inserting a flat blade screwdriver into the rectangular hole seen on the wide end of the plastic bracket base, and then pressing the screwdriver downward.



Step 2 - Use a Phillips screwdriver to unscrew the metal mounting plate from the mounting surface.



Caution!
Do not pull a mounted camera off the mounting surface by force, as doing so may damage the bracket base permanently and render future camera mounting impossible.

Installing Camera Software

The software for your camera includes 3 major parts which help you use the IP camera:

1. iWizard Installer and iWizard utility: For quick and convenient setup of your IP camera software/ hardware in steps. Having installed the iWizard, double-click on the iWizard icon on your desktop and it will start to search the available cameras on your network.

Figure 2-6. iWizard

2. 16-CH WebVUer: This provides Live View and controls via Internet Explorer (ActiveX). The WebVUer also supports multi-channel management, allowing you to monitor up to16 cameras simultaneously.

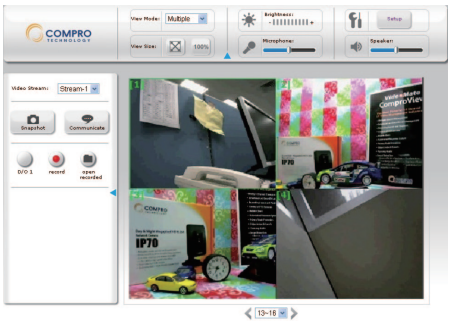


Figure 2-7. 16-CH WebVUer

3. ComproView: A professional PC-based surveillance software that supports up to 32 simultaneously channles and real-time recording, playback, event alerting and more.

Figure 2-8. 32-CH ComproView

Running the iWizard Installer

Before running Compro software, make sure you have the IP Camera beside you. To install the software, insert the installation CD supplied with the camera into your CD-ROM drive, and the iWizard installer will start and guide you during the installation process of the hardware and software for your IP camera. You will be asked to select the displayed language first. Then please click on [IP Camera Setup] and select the camera you wish to install, and follow the steps below.

1. The wizard searches for all available cameras on your local network. Click on a camera from connected camera list, and wait until the live video and camera information are displayed on the right side. (You can double-check the device name and the MAC ID which are printed on the serial number sticker at the back of IP camera and on the package). Then, click [Next].

Figure 2-9. Camera selection

2. Meanwhile, if you see the Windows Security Alert dialog box during the search, please choose [Unblock]..

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Do you want to keep blocking this program?
Name: ComproView iWizard
Publisher: Compro Technology, Inc.
Keep Blocking
Unblock
Ask Me Later
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

Figure 2-10. Security alert dialog (Windows XP)

3. The default password is *admin*. We strongly recommend you enter a new password to protect your system. (Please note down your new password) You can also click [Next] to skip this step and reatain default password.

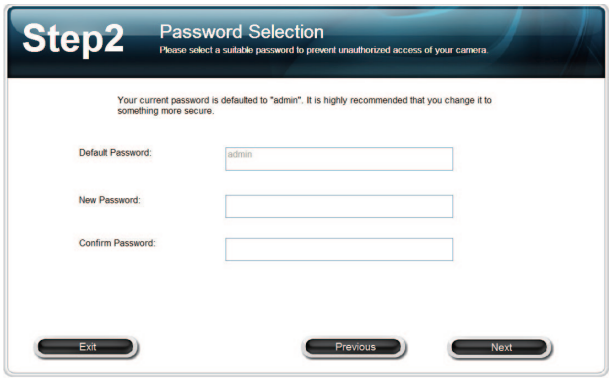

Step2
Password Selection
Please select a suitable password to prevent unauthorized access of your camera.
Your current password is defaulted to "admin". It is highly recommended that you change it to something more secure.
Default Password:
admin
New Password:
Confirm Password:
Exit
Previous
Next

Figure 2-11. Password setup

4. Please check the camera name, date and time setting.

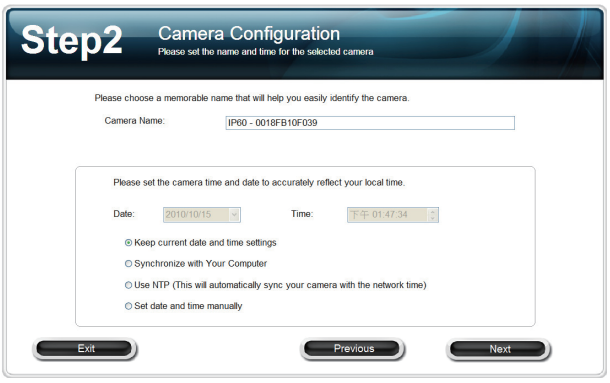

Step2
Camera Configuration
Please set the name and time for the selected camera
Please choose a memorable name that will help you easily identify the camera.
Camera Name:
IP60 - 0018FB10F039
Please set the camera time and date to accurately reflect your local time.
Date:
2010/10/15
Time:
下午 01:47:34
Keep current date and time settings
Synchronize with Your Computer
Use NTP (This will automatically sync your camera with the network time)
Set date and time manually
Exit
Previous
Next

Figure 2-12. Camera configuration

5. When you come to Seedonk setup, you can choose whether to use Seedonk P2P service and remotely access your camera through Seednok platform. If you choose [Yes], you may opt for connecting to a different Seedonk server by pressing the [Advanced Settings] button, and entering a different server address. (If you enable Seedonk P2P service, you won't be able to use iDDNS service.)

Step2
Seedonk Setup
By enabling Seedonk service, you will be able to connect camera instantly to the Internet without extensive network configurations
powered by seedonk
Do you wish to setup the Seedonk P2P service?
Yes
No
Seedonk helps you get more from your camera. With Seedonk, you can easily view, manage, and share your camera securely over the internet. Seedonk's suite of Apps (iPhone, Android, Facebook, Web, and IM) keep your cameras always accessible right at your finger tips.
Mobile Apps (iPhone/Android)
Seedonk Messenger
Web Client
Social Web (Facebook App)
Advanced Settings
Exit
Previous
Next

Figure 2-13. Seedonk setup

Notice!
Seedonk video streams are encrypted end-to-end and most of the streams are sent through direct channels and don't pass through Seedonk server, which helps protect user privacy.

6. Select the configuration of your IP address to obtain IP address automatically (DHCP mode) or manually enter IP address information. Then choose whether to allow iWizard to automatically configure your firewall, configure connection port and the frequency of your local power. (Note if you enabled Seedonk P2P service, you won't see connection port and frequency configuration here.)

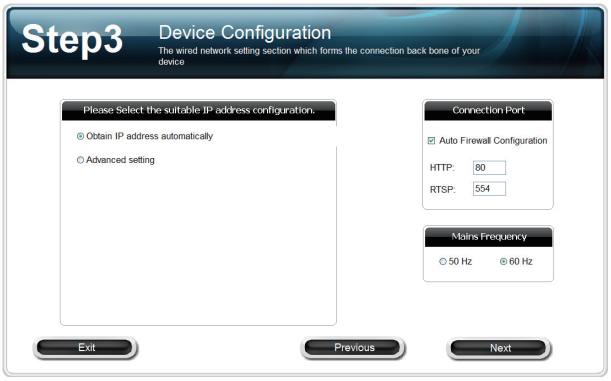


Figure 2-14. Device configuration

7. (If you are not using wireless connection, please skip to point 9) If you have purchased and connected the Compro wireless adaptor to your IP camera, you will come to wireless network setup. Please click[Yes] to connect wirelessly by default. The wizard will search for available access points. Then select one access point.

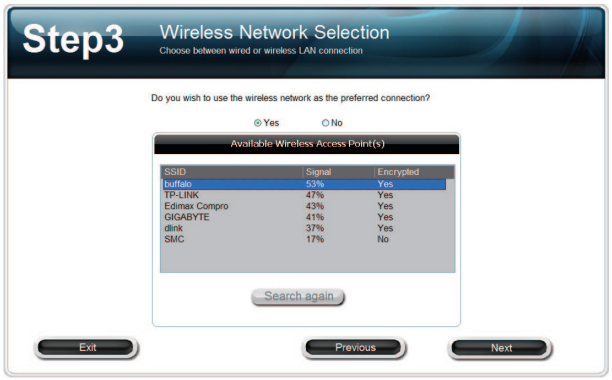


Figure 2-15. Wireless connection setup

8. The wizard will select an appropriate encryption method automatically. You need to input the correct passphrase, and then select a suitable IP address configuration in order to continue with setup. (For Wireless connection only.)

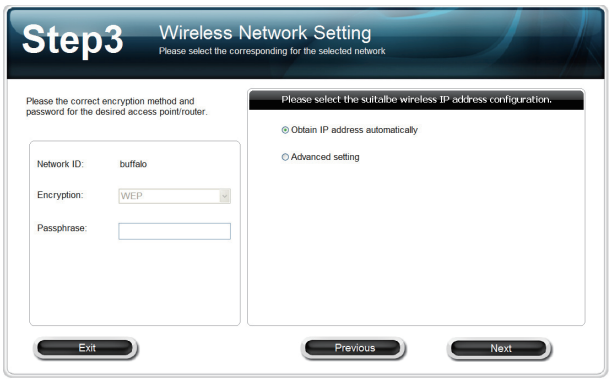


Figure 2-16. Wireless connection setup

9. (Skip this part if you enabled Seedonk P2P service) If you didn't enable Seedonk P2P service earlier, you can set up iDDNS service here. To do so, click [Yes] and input your desired address name. Then click [Check Availability] button to check if the entered address name has been used. When successful, you can click [Create Shortcut] button to create a shortcut on your desktop for convenient access.

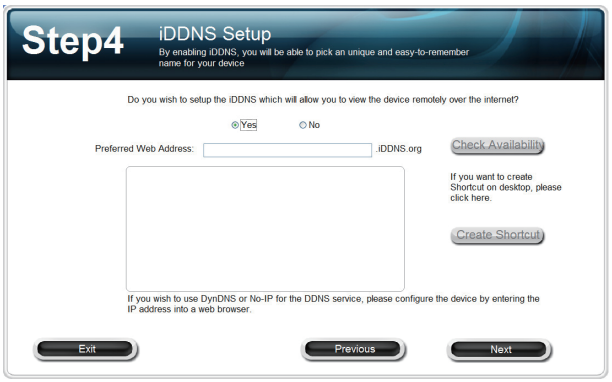

Step4
iDDNS Setup
By enabling iDDNS, you will be able to pick an unique and easy-to-remember name for your device
Do you wish to setup the iDDNS which will allow you to view the device remotely over the internet?
Yes
No
Preferred Web Address:
iDDNS.org
Check Availability
If you want to create Shortcut on desktop, please click here.
Create Shortcut
If you wish to use DynDNS or No-IP for the DDNS service, please configure the device by entering the IP address into a web browser.
Exit
Previous
Next

Figure 2-17. iDDNS configuration

Notice!

The iDDNS is a free DDNS (Dynamic Domain Name Service) service from Compro. If you are using floating IP, you need to apply for DDNS service to create a hostname that links to your home or office IP address, which provides easy-to-remember URL for quick access to your camera anytime, anywhere. After successfully creating the iDDNS address name, you can then enter http://xxx (input by yourself).iddns.org in a browser to access your IP camera.

If your local LAN and router have firewall to block attack from outside, you have to configure the HTTP port on your router. For example, if you set the HTTP port "2001" for your IP camera, your IP camera's address will be *http://xxx (entered by you).iddns.org:2001*.

10. (Skip this part if you didn't enable Seedonk P2P service.) You will be asked to log in to your Seedonk account when you come to Seedonk setup in step 4. If you don't have a Seedonk account yet, you can choose to create a Seedonk account and continue with account registration (You need to read and accept the Seedonk end user license, term of service, and privacy statement in order to open a Seedonk account).

Step4
Seedonk Setup
In order to use Seedonk to manage your camera, you need to have a valid Seedonk Account
powered by seedonk
Account Registration
I already have a Seedonk Account
I need to create a new Seedonk Account
Exit
Previous
Next

Figure 2-18. Seedonk account setup

11. (Skip this part if you didn't enable Seedonk P2P service.) After successful login to your Seedonk account, you may choose to download and install Seedonk Messenger by clicking on [Download and Install]. Click on [Next] if you wish to do so later manually.

Step4
Seedonk Messenger Installation
Please download and install the latest version of the Seedonk Messenger
powered by seedonk
With the Seedonk Messenger, you can easily view and record your live camera, configure its settings, and share it with friends and family from anywhere in the world!
Download and Install
Exit
Previous
Next

Figure 2-19. Installation of Seedonk Messenger

12. The iWizard starts programming your camera based on your settings. Please wait patiently and do not interrupt the process.

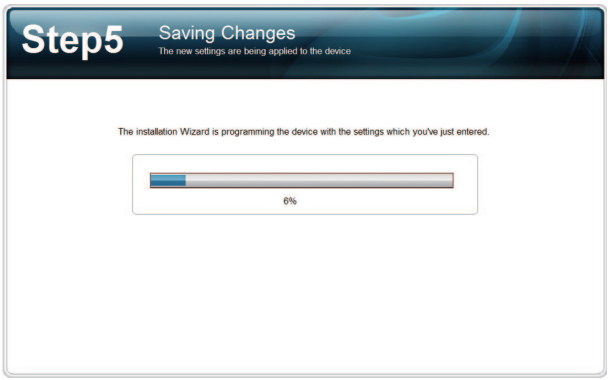

Step5
Saving Changes
The new settings are being applied to the device
The installation Wizard is programming the device with the settings which you've just entered.
6%

Figure 2-20. Programming camera

13. The iWizard performs system diagnosis based on your network settings and alert you for inappropriate settings (marked with a exclamation mark icon).

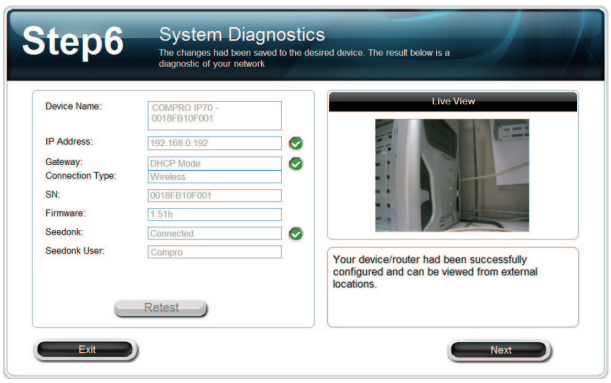


Figure 2-21. System diagnosis

14. The iWizard indicates the setup has been completed successfully. You can click on the URL to view the live video now. Click [Yes] if you wish you set up another camera from scratch.

Step7
Multi-device Setup
If you wish to setup another device at this time, you may do so by pressing the Yes button
Congratulations, you had successfully setup the network device. You can start using the device by enter the IP address into the web browser.
http://192.168.0.192:80
Do you wish to setup another device?
Yes
No
Exit

Figure 2-22. Multi-camera setup

Notice!

The iDDNS is a free DDNS (Dynamic Domain Name Service) service from Compro. If you are using floating IP, you need to apply for DDNS service to create a hostname that links to your home or office IP address, which provides easy-to-remember URL for quick access to your camera anytime, anywhere. After successfully creating the iDDNS address name, you can then enter http://xxx (input by yourself).iddns.org in a browser to access your IP camera.

If your local LAN and router have firewall to block attack from outside, you have to configure the HTTP port on your router. For example, if you set the HTTP port "2001" for your IP camera, your IP camera's address will be http://xxx (entered by you).iddns.org:2001.

Installing ComproView

1. After your iWizard setup completes, you can choose to install the professional video management software ComproView by choose [Install] as illustrated below. The ComproView Installation wizard in the installation CD will help you to step-by-step in the process. Please follow the on-screen instructions to install ComproView.

Step9
ComproView Setup
You may choose to install the ComproView program
Do you wish to install ComproView, a feature-rich security system which excels at managing multiple cameras and can provide 24/7 non-stop monitoring and recording of the desired cameras?
Install
Main Menu
COMPRO
TECHNOLOGY
Copyright 2010-2011. Compro Technology Inc. All Rights Reserved.

Figure 2-23. ComproView setup in iWizard

2. At the end of installation, your will be asked to restart your system. Please close all your applications and click[Yes] to restart your syste\m. After restarting your system, you will see the iWizard and ComproView icons on your desktop. You can double-click on the "iWizard" to change your camera setup or double-click on "ComproView" to execute the ComproView program.

Chapter 3: Accessing Camera

Viewing Streamed Video

Compro provides a wide range of access method to view the live video streamed from the IP camera that you've just installed, which includes:

1. View the live video stream from a single camera via the Internet Explorer (WebVUer) which comes with all Desktop/Laptop/Nettop with Windows system. This is the easiest way of using the IP camera and requires little learning time. (The FireFox browser is supported via firmware update and VLC plug-in)
2. View the live video stream from a single camera via the web browser on your iPhone/iPod, BlackBerry, PDA, MID or any other mobile devices with web browser. It supports Motion-JPEG video viewing on your mobile devices anytime, anywhere. (Live view only)
3. View the live video stream from a single camera via 3GPP-capable mobile phone over the internet. This is the preferred way of accessing your camera when you are out of your house and have no access to a computer. However, due to some limitation of the technology, only video stream is provided in this mode.

Notice!
Your wireless carrier will be charging at a pre-determined rate for using web service.

4. View the live video stream from a single camera or multiple cameras via the bundled ComproView software. ComproView is a comprehensive software encompassing the capabilities of monitoring, recording and detecting a set area. For the full function of the ComproView, please refer to the electronic manual included on the CD.

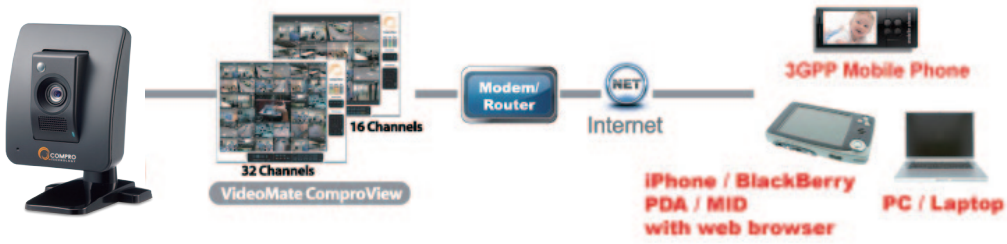


Figure 3-1. Ways of accessing camera

Accessing via PC Web Browser

User can check the current condition of the monitored area via Internet Explorer which comes with all Windows-based computer system. Please refer to the following steps to watch live view on WebVUer:

1. Open the Internet Explorer.
2. Enter the camera's IP address. (192.168.0.x)
3. A dialog box that request the user name and password appears; enter the valid user name and password for your IP camera, and then press OK. The default user name and password is "admin."

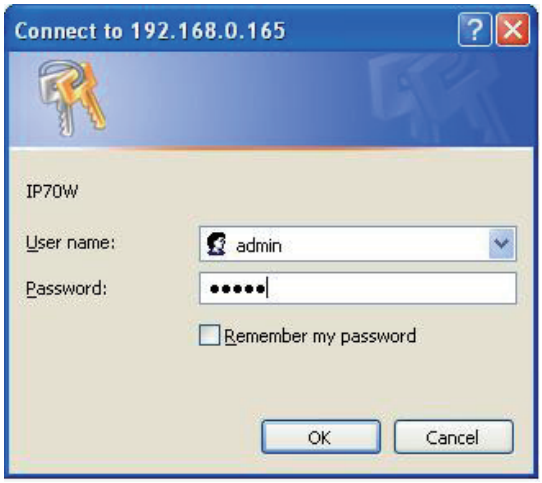


Figure 3-2. Login dialog box

Notice!
If you forget your user name and password, you need to reset your camera to factory default settings (see Troubleshooting chapter).

4. After valid user name and password are entered, Internet Explorer will display a message to warn user about the installation of the software from "Compro technology, Inc."

Address
http://192.168.0.165/cgi-bin/view/index.cgi
This site might require software from: 'Compro Technology, Inc.'. Click here to install... ...

Figure 3-3. Installing Compro ActiveX

5. Please click on the warning message and choose to install the ActiveX

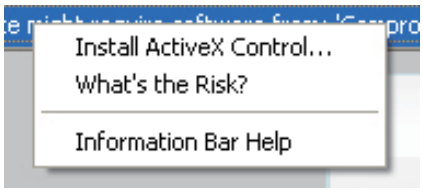


Figure 3-4. Installing Compro ActiveX

6. And then the reconfirmation dialog will appear on the screen. Please press [Install] button to install the [USActiveX.cab] and "ComproClientActivex.cab] on your system.

Internet Explorer - Security Warning
Do you want to install this software?
Name: USActiveX.cab
Publisher: Compro Technology, Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Figure 3-5. Security Warning 1

Internet Explorer - Security Warning
Do you want to install this software?
Name: ComproClientActivex.cab
Publisher: Compro Technology, Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Figure 3-6. Security Warning 2

7. After ActiveX installation completes, the Windows Security Alert dialog appears. Please click [Unblock] to unblock it from firewall.

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Do you want to keep blocking this program?
Name: Internet Explorer
Publisher: Microsoft Corporation
Keep Blocking
Unblock
Ask Me Later
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

Figure 3-7. Unblocking application

8. Now you can start using web browser for watching live video and controlling IP camera.

Figure 3-8. Live view

Notice!

If your IP camera falls behind a firewall, you will need to enable ports 80 and 554 (default ports used by camera) in your firewall and link them to the internal IP address of the camera. Should you have more than one IP cameras, please increase the value of the above ports by 1, e.g. the second camera will have ports 81 and 555. Please refer to the manual of your router or firewall.

Accessing via iPhone/Smartphone

As long as your device comes with built-in web browser, you can use the device to view the live video stream via MJPEG mode (video only), which is supported on popular smartphones like iPhone and a wide range of mobile devices such as NB, Mobil Phone, PDA, Nettop, MID.

Platforms and supported web browsers:

- Windows: IE, Google Chrome, Safari, FireFox
- Linux: FireFox
- Mobile Device: iPhone, iPod Touch, BlackBerry, Android, WM and major-brand mobile phones.

To access your camera via mobile web browser, follow the steps below.

1. Use a PC to log on to the camera, and go to [Setup] > [Video Settings], and check the [Enable 2nd Stream (include 3GPP)] box to enable the stream-2 video.
2. For the Stream-2, set the Codec as "Motion-JPEG".
3. Launch the web browser on your iPhone/Smartphone, and enter (IP-address)/mjpeg.html into the address field of your phone's web browser to watch live video on your mobile device. Or click on the link at the bottom of the Video Settings page to preview the M-JPEG stream.

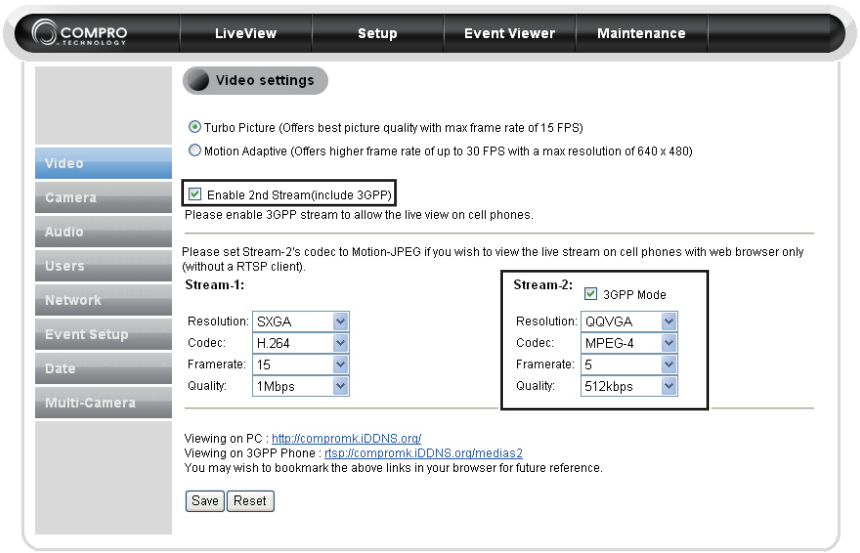


Figure 3-9. Enale 2nd stream

Accessing via 3GPP Mobile Phone

You can access your IP camera via 3GPP-compatible mobile phones when the IP camera has a stable internet connection and the mobile device has a good connection on GPRS or to 3G network. There are several prerequisites which need to be met before using the 3GPP function successfully.

1. User should turn on the 2nd stream of the IP camera and set the resolution as QQVGA, FPS as 5, codec as MPEG-4 and set a medium bit rate for Quality. In addition, after enabling the 2nd stream, you will notice a drop in the frame rate for the primary stream. This is a normal behavior since the camera system has to process two streams instead of just one.
2. User needs to enable DDNS function and obtain a valid Dynamic DNS (DDNS) address as detailed in earlier sections of this manual.
3. Ensure that an active internet connection is available for both the IP camera and the intended mobile phone.

Having taken above actions, to view the live image, enter the following address into the address field of your mobile web browser or streaming software, "rtsp://ipcamera-ip/medias2" (the "ipcamera-ip" is the DDNS address that you've obtained in the installation process).

Compatible Mobile Phones:
HTC: Touch Diamond
Nokia: N78
Samsung: U708
Sony Ericssion: K610i / W850i

Incompatible Mobile Phones:
Nokia: 6500C
Sony Ericssion: T700 / W910 / Z750i
Dopod: CHT9110

Notice!
Compro Technology does not guarantee the successful viewing of live video on every 3GPP-compatible cell phone. You may also need to consult with the mobile network service provider about the usage and availability of 3GPP format.

Accessing via Seedonk IM Client

If you have installed the Seedonk IM client, you can also access your network camera through the easy-to-use Seedonk IM. Its intuitive instant-messenger-like interface lets your conveniently control, view, and share cameras over the Internet. If you have not installed the Seedonk IM client, you can download it from "http://web.seedonk.com/download.html." Having downloaded the Seedonk IM, run the application and follow on-screen instruction to complete its installation.

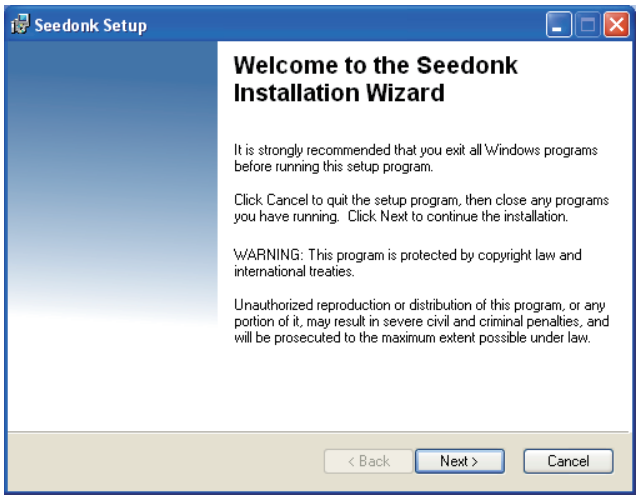

Seedonk Setup
Welcome to the Seedonk Installation Wizard
It is strongly recommended that you exit all Windows programs before running this setup program.
Click Cancel to quit the setup program, then close any programs you have running. Click Next to continue the installation.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel

Figure 3-10. Installing Seedonk IM

To access your camera using Seedonk IM client, double-click on the Seedonk icon on your windows desktop, and then enter the user name and password of your Seedonk account to log in to the service (If you do not have a Seedonk account, go to "http://www.seedonk.com/cxs/register.do?from=register" and continue with account registration).

The following figure shows a successful login to Seedonk IM platform. You will find your camera under "My Cameras". Double-click on any on-line camera to view its live video. For complete user guide of Seedonk IM, visit "http://web.seedonk.com/support.html".

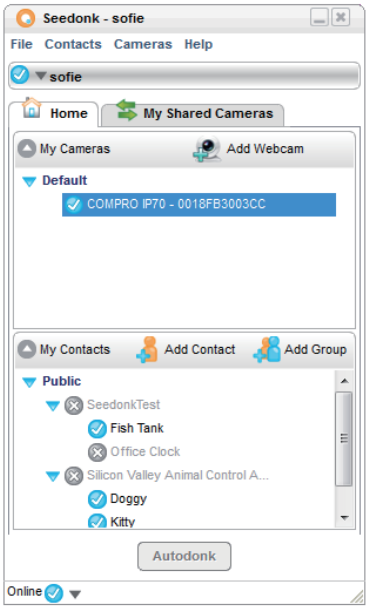


Figure 3-11. Seedonk IM

Notice!

When your camera is installed in an indoor environment, live image of your network camera may appear darker than expected due to insufficient environmental lighting. When this happens, simply move your camera to a different location where lighting condition is better or turn on the back light compensation if there are lights shining behind the objects in the scene.

Chapter 4: Live View

Page Layout

On the first page, you can see the basic control panel at the top and on the left-hand side, and the live video on the right-hand side. Click on the ▲ icon to hide or show the control panels.

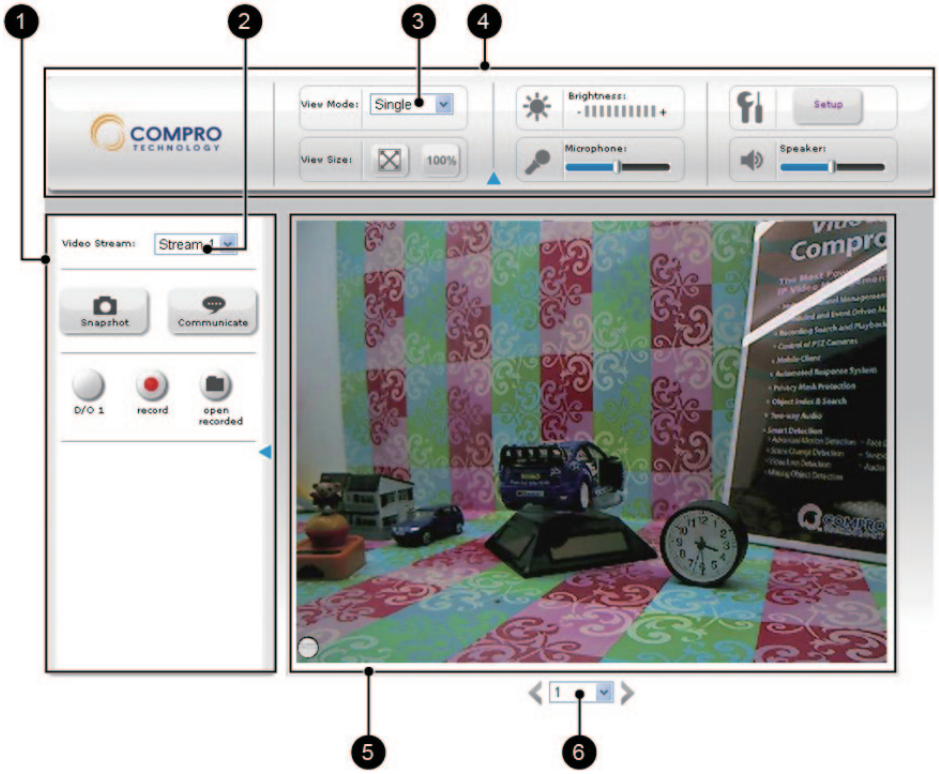


Figure 4-1. Layout of LiveView page

1. **Left control panel** – Here provides control over video recording, voice communication, I/O, and snapshot.
2. **Video stream selection** – You can switch between Stream-1 and Stream-2. (stream-2 in setup page must be enabled).
3. **Video mode selection** – Let you switch video display between single, multi, and auto scan mode.
4. **Top control panel** – Let you adjust displayed video and mic and speaker.
5. **Live video window** – Live video stream.
6. **Channel selection** – Select a channel from the drop-down list, or click on the arrow icon to switch to next/previous channel. (Maximum 16 Channels)

Icons on Live View Page

Top Panel

Icons seen on the top control panel:

One of the view size button; The **Fit Browser** button resize the live video window to fit browser size.

One of the view size button; The **Actual Size** button resize the live video window to original size.

Adjusts the **Brightness** of camera image as you wish.

Use its slider to adjust the **Microphone Volume**. Click on this icon to mute the built-in microphone.

Click on the [**Setup**] button to access the main setup page of your camera.

Use its slider to adjust the **Speaker Volume**. Click on this icon to mute the built-in speaker.

Left Panel

Icons seen on the left control panel:

Click the **Snapshot** button to take a snapshot of live screen.

This **Communicate** button allows you to speak into your PC microphone and broadcast through camera's speaker. See "Voice Communication" section for details.

Press this button to trigger the alarm and siren connected to the **Digital Out** port of your camera.

Records live video by pressing [**Record**] button. (If your computer can not play .mkv file format, please download and install VLC media player or KMPlayer from the internet.)

Open a file browser to search and play back video files captured by the camera. (File format is .mkv)

Others

Other icons seen on this page:

Digital Zoom button. Available zoom factor: 1~10x.

Click on the left/right arrow to **Switch Channel**.

Enable Digital Zoom

To enable the digital zoom feature:

1. Click on the magnifier icon located on the lower-left corner of real-time video display, and then the digital zoom control window will pop up.
2. Check [Enable Digital Zoom] option and set desired zoom ratio by dragging the adjustment bar. Then set the area to be enlarged by dragging the black square shown on preview window. Click on the [X] button shown above or press [Esc] key to save the changes and/or close the preview window

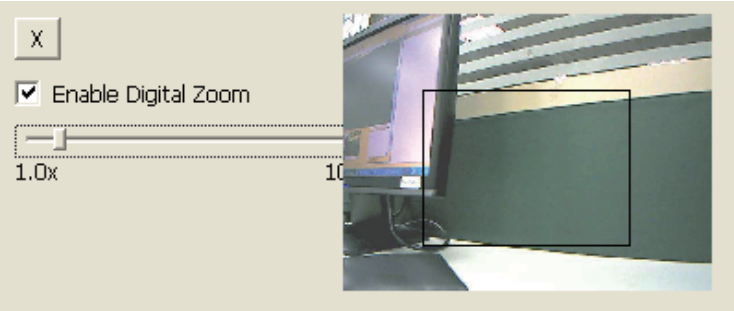


Figure 4-2. Digital zoom window

Voice Communication

Pressing the [Communicate] button allows you to speak into your PC microphone and broadcast through IP camera's speaker. To talk through your camera's built-in speaker, place your cursor on the [Communicate] button (the tool tip "Right click to setup" will be shown), and right-click on the button and select [Setting] to choose input device and input source.

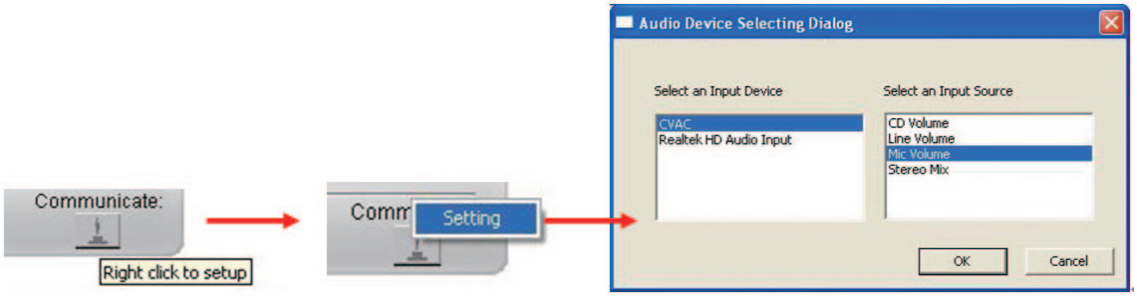


Figure 4-3. Communication setting

After setting the input device, please click and hold the communicate button (which will turn black) to talk through microphone.

Notice!
When using the voice communcation feature, you may experiece various degrees of delay between transmission from the computer and playback at the camera depending on the condition of your network environment.

Chapter 5: Configuration

Main Setup Page

The main setup screen consists of all the basic settings options. To access the main setup page, click on the Setup button seen at the top-right location in the live view screen. Then the setup page as shown in the picture below will be displayed. You can configure the detailed settings of your IP camera here.

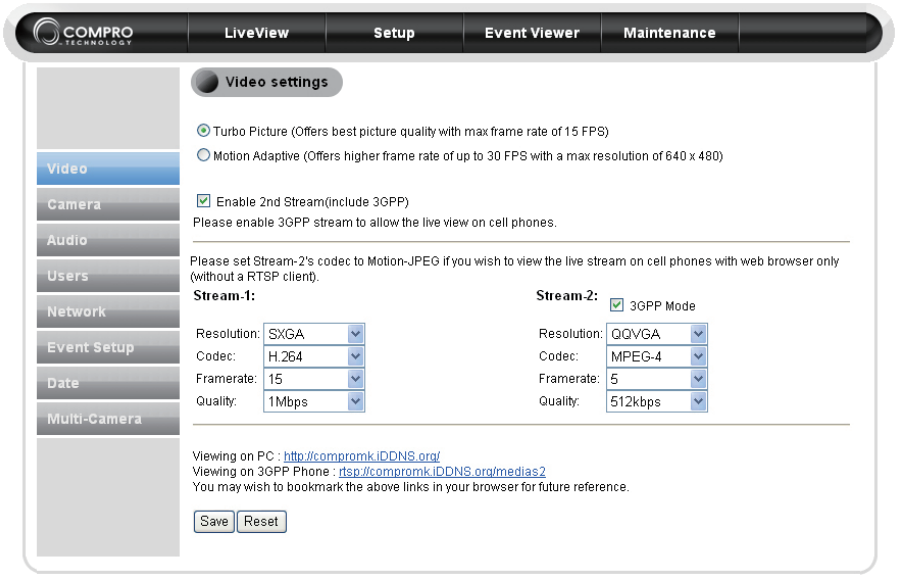


Figure 5-1. Main setup page

You also can go back to live view screen by choosing LiveView from the top menu. The top menu also allows you to go to the Event Viewer and Maintenance of the camera. The main setup menu on the left contains several parts.

Video Settings

Here you can configure the settings for video stream.

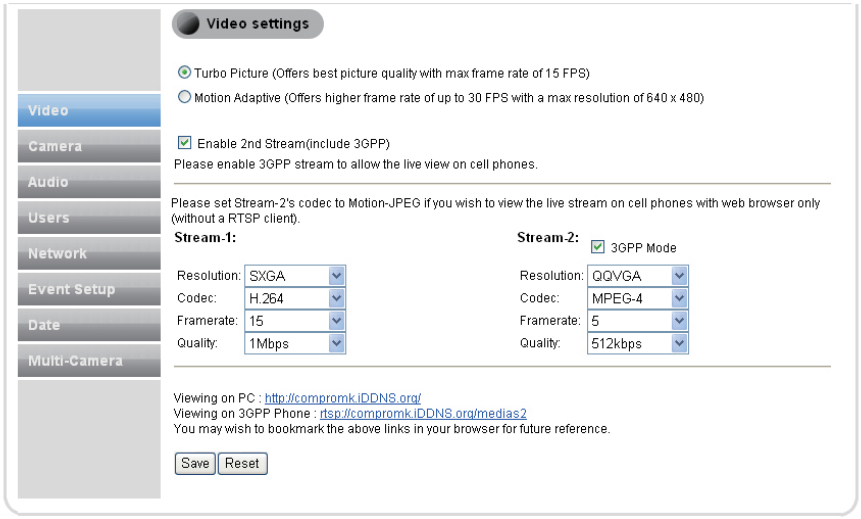

Video settings
Turbo Picture (Offers best picture quality with max frame rate of 15 FPS)
Motion Adaptive (Offers higher frame rate of up to 30 FPS with a max resolution of 640 x 480)
Video
Camera
Audio
Users
Network
Event Setup
Date
Multi-Camera
Enable 2nd Stream(include 3GPP)
Please enable 3GPP stream to allow the live view on cell phones.
Please set Stream-2's codec to Motion-JPEG if you wish to view the live stream on cell phones with web browser only (without a RTSP client).
Stream-1:
Stream-2:
3GPP Mode
Resolution: SXGA
Codec: H.264
Framerate: 15
Quality: 1Mbps
Resolution: QQVGA
Codec: MPEG-4
Framerate: 5
Quality: 512kbps
Viewing on PC : http://compromk.iDDNS.org/
Viewing on 3GPP Phone : rtsp://compromk.iDDNS.org/medias2
You may wish to bookmark the above links in your browser for future reference.
Save
Reset

Figure 5-2. Video Settings

Video Mode

You can select between Turbo Picture and Motion Adaptive mode.

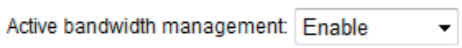
- **Turbo Picture** - This feature will provide you with the best video quality, but max. frame rate will be limited to 15 FPS.
- **Motion Adaptive** - This feature will provide up to 30 FPS with maximum 640x480 resolution.

Stream Setting

You can change the setting of resolution, codec, frame rate, and quality for the video stream. If you need to watch the live video on your mobile phone or PDA, please check the [Enable 2nd stream (include 3GPP)] box to enable the Stream-2 video, and the stream setting for the 2nd stream will be displayed. For available video modes for stream 1 and 2, refer to the appendix section of this manual

Active Bandwidth Management

When network congestion occurs, Compro network camera can intelligently force down current user-defined video bit rate and bring it back when healthy bandwidth level becomes available. This avoids video quality deterioration and frame dropping by restricting network camera to send excessive amount of data while the network is already overloaded. To activate the function, select Enable from the drop-down list.



If you have set up the iDDNS service during the installation of IP camera, you can directly enter the web address of your IP camera in a web browser and don't bother with remembering the IP address. (In this case, replace the "compromk" what you entered in the installation process.)

Viewing on PC : http://compromk.iDDNS.org/
Viewing on 3GPP Phone : rtsp://compromk.iDDNS.org/medias2
You may wish to bookmark the above links in your browser for future reference.

Camera Settings

Here you can control the image color and related settings as well as IR light of your IP camera.

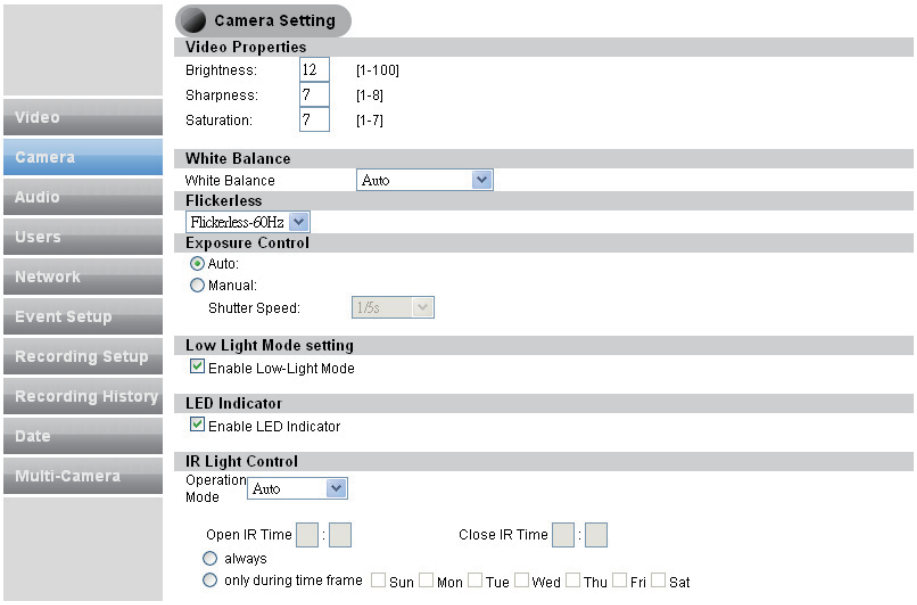


Figure 5-3. Camera setting page

Video Properties

Here you can adjust the Brightness, Sharpness and Saturation on your IP camera.

White Balance

This controls the white balance of IP camera; available selection: Auto (default), Sunny, Cloudy, Fluorescent Lamp, and Incandescent Lamp.

Flickerless

Here controls the flickerless mode: 60 (default) or 50 Hz.

Exposure Control

This allows you to control the exposure time of the camera. Default: Auto mode. You can manually set the shutter speed within the range of 1/5s to 1/16000s to meet your lighting conditions.

Low Light Behavior

Here it allows the camera to get better and clearer picture when under low light condition. (Default: enabled)

LED Indicator

This let you control the LED indicator at the front of camera. Turn on the LED indicator or turn it off in case you don't want people to notice the camera is working.

IR Light Control (IP70 only)

The IP70 network camera is equipped with a IR light sensor and 6 IR LEDs (inside casing), which makes it capable of fitting different lighting situations and providing 24/7 monitoring.

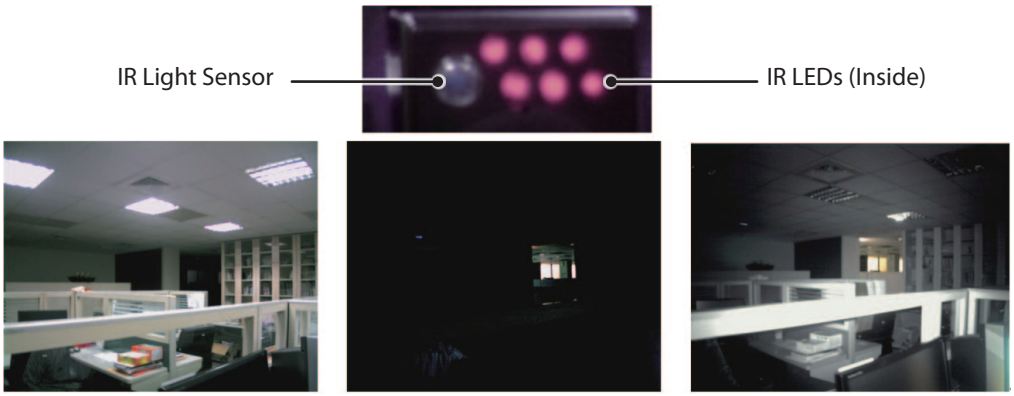


Figure 5-4. Effect of IR LEDs

The IR light sensor allows the camera to detect the lighting condition of the environment and to turn on/off the IR LEDs accordingly; you can configure the IR light operation mode to be [Auto], [Always On], [Always Off], or [By Schedule].

Figure 5-5. IR light control

For scheduling on/off time of the IR LEDs, you can directly input the desired open and close time, and set the repeat option to be [always] or [only during time fram]. (In this example above, the system will leave the IR LEDs on between 19:00 to 23:00 from Monday to Friday.)

Embed Text and Image

You can embed text and/or image on 4 different locations on the live screen. (Upper Left, Upper Right, Lower Left, Lower Right). To embed image, click on the Upload Image link and choose a suitable image. (Limited to JPEG/BMP, 100x30 pixels, 128KB) To remove an embedded image, press the Clear button.

Audio Settings

Here you can choose to enable or disable the audio and also adjust the volume. The Stream-2 audio is only available for adjustment when you turn on the 2nd Stream and check its 3GPP mode option under video settings.

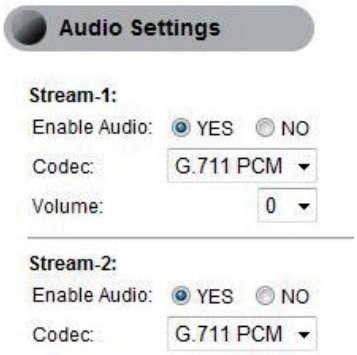


Figure 5-6. Audio settings page

User Settings

Here you can add, modify or remove viewers/administrators. The viewers are only allowed to view live video and can't change any of the camera settings. On the flip side, the administrators have the rights to make any changes.

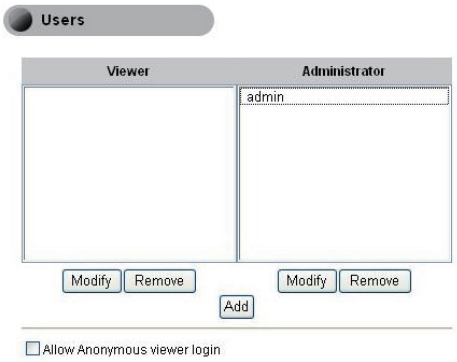


Figure 5-7. Users Setting

- **Modify/Remove** - Click here to Modify or Remove an existing viewer.
- **Add** - Click here to add new viewer or administrator
- **Allow anonymous login** - Click here to allow anonymous viewer login without requiring user name and password, but only to allow them to view the live videor

When you add new users, you need to provide the information on user name, password and group type.

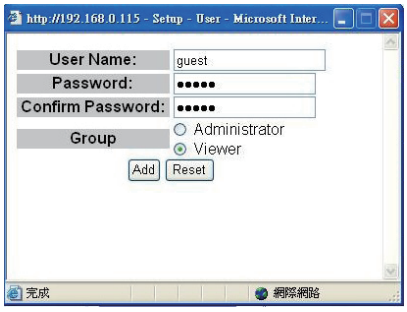


Figure 5-8. Adding/Modifying user

Network Settings

Here you can check your network settings and adjust the detailed settings.

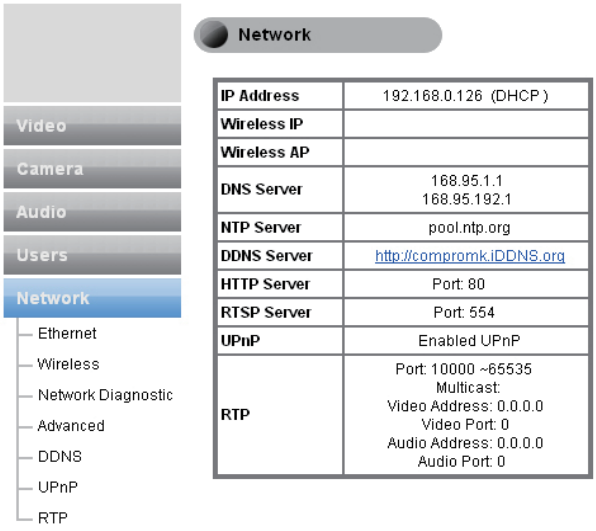


Figure 5-9. Network settings

Ethernet

Set up the IP address for the IP camera to obtain IP address via DHCP (recommended), or use the manually inputted static IP address, or obtain IP address via PPPoE with which you need to provide valid user name and password.

Wireless

If you have installed the Compro wireless adaptor on your IP camera, you can set up the wireless connection in this page. To connect wirelessly, please check the [Use Wireless First] box to give priority to wireless connection when LAN network is also connected. And then provide the necessary information on IP address (to obtain IP address via DHCP or use specified static IP address) and access point. And click [Save] for the changes to take effect.

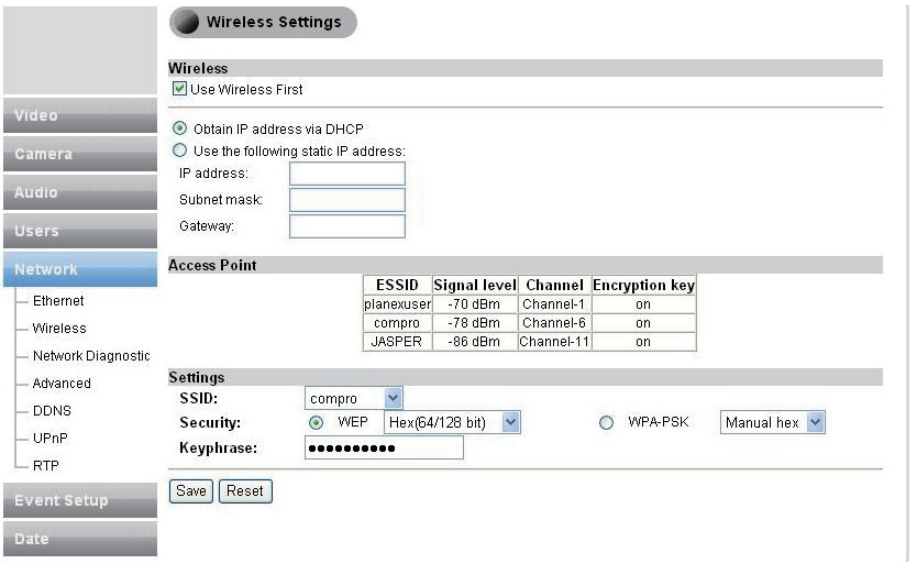


Figure 5-10. Wireless settings

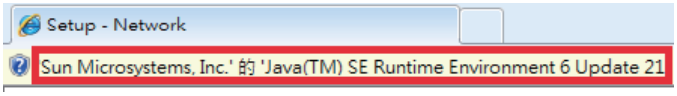
Network Diagnostic

Here you can run the diagnostic tool for your current network settings and it will show error messages if any anomaly is detected. For further information on error messages, please refer to the FAQ section at www.comprousa.com for more information.

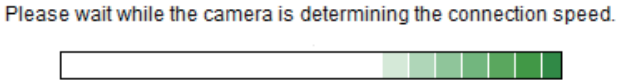
Network Bandwidth

This automatic network connection speed detection is to help users better define appropriate video bit rate for their applications. To perform network bandwidth test:

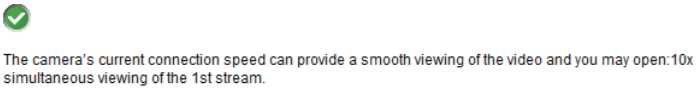
1. In [Setup] > [Network], click on [Network Bandwidth] located on the left menu to start.
2. Wait for Internet Explorer to prompt for the installation of Java plug-in. Then click on the text to accept.



3. Camera begins detecting connection speed.



4. Once speed diagnostics is done, camera will advise current user on network speed. See below example:


The camera's current connection speed can provide a smooth viewing of the video and you may open:10x simultaneous viewing of the 1st stream.

The message indicates that currently connected network has a bandwidth to support up to 10 network cameras of identical bit rate settings (either on Stream 1 or Stream 2). If the message shows a less favorable result, go to [Setup] > [Video] to lower current video bit rate values

Advanced

Adjust the advanced network settings here.

DNS server

Set the DNS server address to be via DHCP or use user-specified DNS address.

NTP Configuration

Set the NTP (Network Time Protocol) server address to ensure the clock of the camera system is synchronized to show accurate time. To synchronize camera clock via NTP server, choose either to obtain NTP server address via DHCP server whose address needs to be provided manually, or to use an external/public NTP server whose default address is set as pool.ntp.org.

HTTP server

Set the HTTP port for your IP camera to be viewed and controlled from the internet. The default port is 80. Valid port numbers are between 1 and 32767. If you need to use port forwarding, please refer to the Port Forwarding section in this manual.

RTSP server

Set the RTSP (Real-Time Streaming Protocol) port for your IP camera to enable the support of 3GPP streaming for mobile phones. Default: 554. If you need to use port forwarding, please refer to the troubleshooting section for port forwarding setup.

DDNS

Click here to enable the DDNS (Dynamic Domain Name Service) service if you are using floating IP and want to link to your IP camera using an URL. Compro iDDNS service is recommended here for use. Or if you already have an account with DynDNS or no-ip, you can also input its domain name here for easier access to your IP camera.

UPnP

Check here to enable/disable the UPnP feature on your IP camera installed on your local network. Also, you can change the device name here. If your operating system supports Universal Plug and Play (UPnP™) feature and DHCP is in use on current network, the Compro IP70 will be automatically detected and added to My Network Places on your Windows. If you want to use the IGD (Internet Gateway Device) protocol on your IP camera, please check the [Enable IGD] box to enable it.

Notice!

If you want to enable the UPnP™ service on your Windows, please execute the "Add or Remove Programs" item found in "Control Panel", and after "Add or Remove Programs" window appears, click on "Add/Remove Windows Components" and double-click on "Networking Services" item and check "UPnP User Interface" box and proceed to install the component.

RTP

If you want to broadcast video using RTP (Real-time Transport Protocol), you can set up the port range, video/audio address and port number here.

Event Setup

When an event happens, like detected motion or triggered I/O device, a snapshot can be instantly sent to your E-mail account, ftp server, image server, notification server, HTTP server, or SMS server to warn you about what's happened.
In order to properly set up the event function, you must:

1. First set up the event server based on your needs: E-mail, FTP, Image or ComproView Notification.
2. Once the event servers are configured, you can then go to the trigger setup to configure the type of event, motion, schedule and the associated even actions.
3. In the motion detection page, you can set up the region and the sensitivity for detection.
4. If you want to use the I/O input, please connect the I/O devices before event setup.

Event Server Setup

Here provides the configurations of 6 different event servers including E-mail, FTP, Image or ComproView Notify, HTTP, and SMS. Please click on the event server you want to configure and input necessary information.

Email server

This supports standard SMTP on SSL-protected webmail platforms such as Hotmail (Windows Live) and Google Mail (Gmail). To use this function, in [Event Server Setup] > [Email Event Server Setup], enter their SMTP address and SSL port respectively. Then enter your user name and password, and the E-mail subject as you wish.

As of August 2010, SMTP and SSL settings for Hotmail and Gmail are as follows:

Platform	SMTP	SSL
Hotmail	smtp.live.com	587
Google Mail	smtp.gmail.com	465

Table 5-1. Webmail setting

In [Authentication Method], select [Login]. Enter a complete email address in [User Name] field: xxxx@xxxx.com. Other SSL webmail platforms are not tested.

FTP server

Here provides the configuration for the FTP server that will receive snapshot taken at the occurrence of triggered events by the camera.

Image server

This allows you to set the name of the saved snapshots taken by the camera when an event is triggered.

Notify server

Here is for entering the message that notifies ComproView of an event being triggered. This feature is meant for integration with ComproView.

HTTP server

The HTTP URL entered here is meant for the camera to use HTTP protocol to send a notification message to the HTTP server used by NVR when an event is being triggered.

SMS server

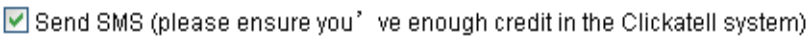
Here provides the configuration for SMS notification feature that allows the camera to send a SMS (Short Message Service) alert message to a user-specified recipient when a pre-defined event scenario is being triggered. This feature does not require additional hardware GPRS modem and SIM card installed. Users only need to first apply an account with a third-party, web-based SMS gateway service provider. To properly configure SMS server:

1. Under [Setup] > [Event Setup] > [Event Server Setup], click on [SMS server] to start configuration.
2. Provide the required data for the following field:

Field	Description
Service provider	Default: Clickatell
User name	User name registered at Clickatell
API ID	API ID provided by Clicktatell
Target country	The country code for recipient's mobile phone number
Target cell phone	Recipient's mobile phone number

Table 5-2. SMS server setting

   If you do not have a Clickatell account yet, please visit [www.clickatell.com], and under [Login] > [New Customer] > [Product Selection], choose [Clicktall Central (API)] and proceed to obtain an API ID according to its online instructions.
3. Choose [Next] to save the setting.
4. Customize the SMS message content if wanted. Choose [Next].
5. To receive a test message, click on [Send me a SMS message to the SMS Gateway]. Or choose [Finish] to save the configuration.
6. To enable SMS notification, go to [Setup] > [Event Setup], and click on [Trigger Setup] to create a new event trigger or modify an existing one. Then under [Event Actions], check [Send SMS] and choose [Finish].



Note: You must have enough credit at Clickatell in order to send SMS message.

Trigger Setup

You can create, modify, or delete event triggers and set the trigger mechanism to be by Schedule, Motion/ Audio Detection or I/O ports. When creating an event trigger by schedule, you can set up scheduled time and period. When setting event trigger as by Motion Detection, you can select the trigger area defined in the Motion Detection setting. You can also select the I/O port to be triggered. After finishing setting event trigger, click [Next] to select event actions so your camera will take snapshots, send e-mails, upload images to ftp, or sound warnings via output port.

Motion Detection Setup

Motion detection feature provides a selection of 3 regions for motion detection. You can directly click and drag on the preview screen to set a detection region. Prior to that, please select the region (0, 1 or 2) and the sensitivity level (S1: Lowest, S2: Low, S3: Medium, S4: High, S5: Highest) from their drop down list. Press [Save] button for the settings to take effect.

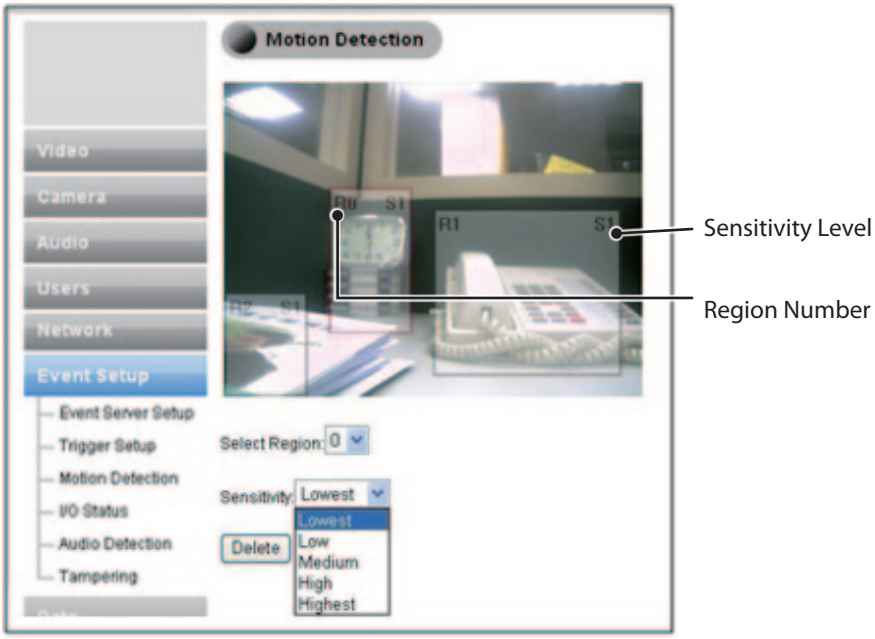


Figure 5-11. Motion detection

If you don't want to keep a set region, please select the region number and click [Delete] to delete it.

I/O Status

Here displays the status of your I/O port for your reference.

Audio Detection

Configure the sensitivity level in audio detection used by event trigger. Available options: low, medium, high.

Recording Setup

In addition to the capability of storing event snapshots to local SD Card slot (card not included), this camera also supports storage of video clips (audio may be included if enabled) to either the local or the remote storage device. In order to fully utilize this function, please refer to the following.

1. Destination: One of the following storage media may be selected.

	Local	Remote
microSD/SDHC	V	
NAS (Samba-based)		V
NFS (Network File Server)		V

Table 5-3. Choice of storage destination

2. microSD/SDHC Setup:

SD Card Status	Status verification
SD Card Capacity	Show available and total space in the card
Format	Click to format SD card
Enable Recording during network failure	Click to allow forced recording to SD card during network failure

Table 5-4. SD card setup

3. NAS Setup:

Domain Name / IP Address	Network of Samba-based NAS (Network Attached Storage)
Directory	Storage path
User Name / Password	User authentication data set for NAS
Check NAS Status	Status verification

Table 5-5. NAS setup

4. NFS Setup:

IP Address	Network address of NFS (Network File Server)
Directory	Storage path

Table 5-6. NFS setup

5. File Management: Once the selected storage is full, the oldest file will automatically be overridden.
6. Recording Setup: Click on [Next] to setup recording methods: Event-based or Scheduled.
   Event-based Recording: Records when motion, audio and I/O are triggered (multiple choices).
   Recording length: 60~3,600 sec, default 60 sec.

   Schedule Recording: Allows non-stop recording for selected weekday(s) and start/end time.

   Disable Recording: Turns off recording function.

7. Playback: Go to [Setup], click on [Recording History] located on the left menu.

Recording History

Recording History lets you manage the video clips that have been recorded and stored on SD card by the camera. You will also see a playback menu as shown below.

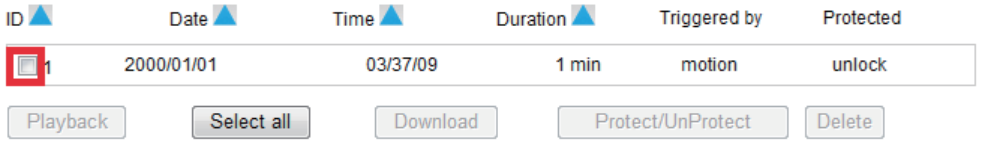


Figure 5-12. Recordng history

To play a video clip, first select a video clip on the list (red square shown above) and press "Playback". (File format: AVI)

Function Key	Description
Playback	Click to download then playback
Download	Click to download the video clip on your PC
Protect/Unprotect	Selected clip(s) will never be erased
Select All / Deselect / Delete	File management

Table 5-7. Management of recording history

Date Setup

Here displays the current time information stored in your IP camera, and you can set up the Time Zone in your current region or country, get time information from NTP server, and synchronize the clock of your camera system with your PC or manually adjust clock.

Multi-Camera

Here you can add, modify, or delete additional IP cameras on your camera list, and later switch between camera channels listed here on LiveView screen. When you add a new IP camera, you need to input the required information into the IP address, username, and password field (port numbers may be required if they have been different). After pressing the Save button, you will see the status of the cameras on the list. To modify an existing camera, simply choose a camera from the list and click Modify.

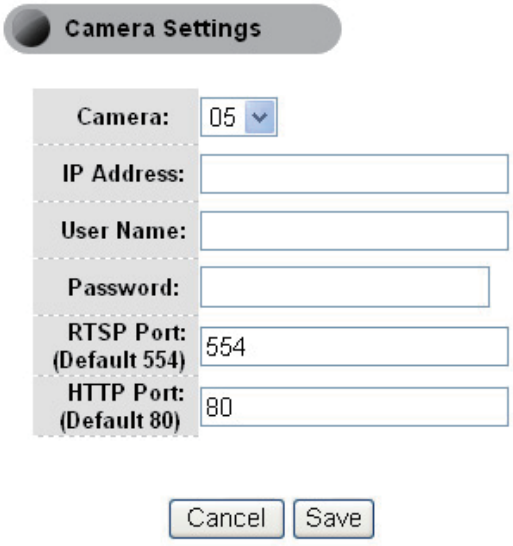


Figure 5-13. Multi-Camera setting

Chapter 6: Event Viewer

Here displays the history of past events successfully triggered by motion, I/O, schedule or audio detection. Click on any type of event trigger to view its history. Or click on the image link, if any, to view the snapshot taken at the occurrence of a pre-defined event.

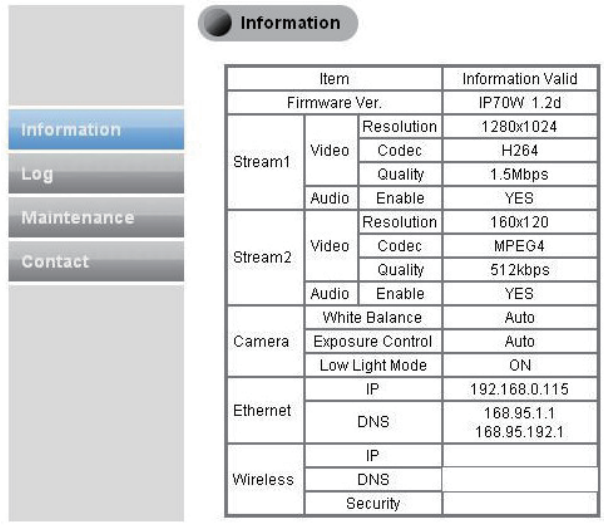
Figure 6-1. Event Viewer

Chapter 7: Maintenance

Here provides the current information about your IP camera, history log, system maintenance page, and contact information of Compro Technology.

Information

Here you can check the firmware version as well as various settings of your IP camera .



Item			Information Valid
Firmware Ver.			IP70W 1.2d
Stream1	Video	Resolution	1280x1024
		Codec	H264
		Quality	1.5Mbps
	Audio	Enable	YES
Stream2	Video	Resolution	160x120
		Codec	MPEG4
		Quality	512kbps
	Audio	Enable	YES
Camera	White Balance		Auto
	Exposure Control		Auto
	Low Light Mode		ON
Ethernet	IP		192.168.0.115
	DNS		168.95.1.1 168.95.192.1
Wireless	IP		
	DNS		
	Security		

Figure 7-1. System information

Log

Here you can check the system log of your network camera.

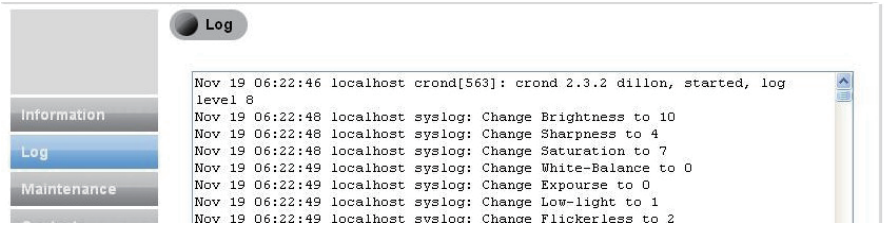

Log
Information
Log
Maintenance
Nov 19 06:22:46 localhost crond[563]: crond 2.3.2 dillon, started, log level 8
Nov 19 06:22:48 localhost syslog: Change Brightness to 10
Nov 19 06:22:48 localhost syslog: Change Sharpness to 4
Nov 19 06:22:48 localhost syslog: Change Saturation to 7
Nov 19 06:22:49 localhost syslog: Change White-Balance to 0
Nov 19 06:22:49 localhost syslog: Change Expourse to 0
Nov 19 06:22:49 localhost syslog: Change Low-light to 1
Nov 19 06:22:49 localhost syslog: Change Flickerless to 2

Figure 7-2. System log

Maintenance

You can reboot your IP camera, change UI language, manage user profile, reset to factory default settings, or update the firmware of IP camera (please download the latest firmware from Compro's website first).

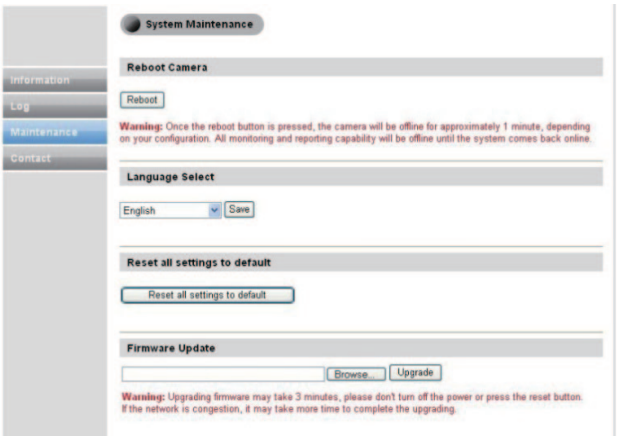
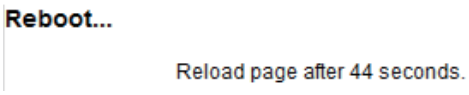

System Maintenance
Information
Log
Maintenance
Contact
Reboot Camera
Reboot
Warning: Once the reboot button is pressed, the camera will be offline for approximately 1 minute, depending on your configuration. All monitoring and reporting capability will be offline until the system comes back online.
Language Select
English
Save
Reset all settings to default
Reset all settings to default
Firmware Update
Browse...
Upgrade
Warning: Upgrading firmware may take 3 minutes, please don't turn off the power or press the reset button. If the network is congestion, it may take more time to complete the upgrading.

Figure 7-3. Maintenance page

Profile Management

The profile management feature allows installers and users to set up more than one camera of similar configurations at great ease. After the current camera is properly configured, users can export current configurations to a profile on PC and then import it into other cameras, thus making least changes possible like changes on IP address or a few other settings that might need to be modified individually. In addition, this feature can also be considered as a backup mechanism for future service need.

1. After the current camera is properly configured, go to [Maintenance] > [Profile Management], and click on [Export] to download camera profile to a user-defined location.
2. To apply configurations to other cameras, press [Browse…] and select the right file you wish to upload, and then click on [Import] to proceed.
3. Camera will start to reboot, which will take approximately 60 seconds to complete. User must not interrupt browser action during the process as doing so may cause problems to the system.



Warning!
you may only cross-import profile among identical camera models.

Reset All Settings to Default

This will reset IP camera to its factory default settings, producing the same result as pressing the hardware rest button at the back of camera. If you need to perform hardware reset, refer to the Troubleshooting chapter.

Firmware Update

You can download the latest firmware from Compro's website (www.comprousa.com). After downloading the firmware, please open the web interface for IP camera setting, and click Setup à Maintenance (top-right) à Maintenance (left menu) and look for firmware update section. Press the Browse button and locate the downloaded firmware file and press Upgrade button to update camera firmware.

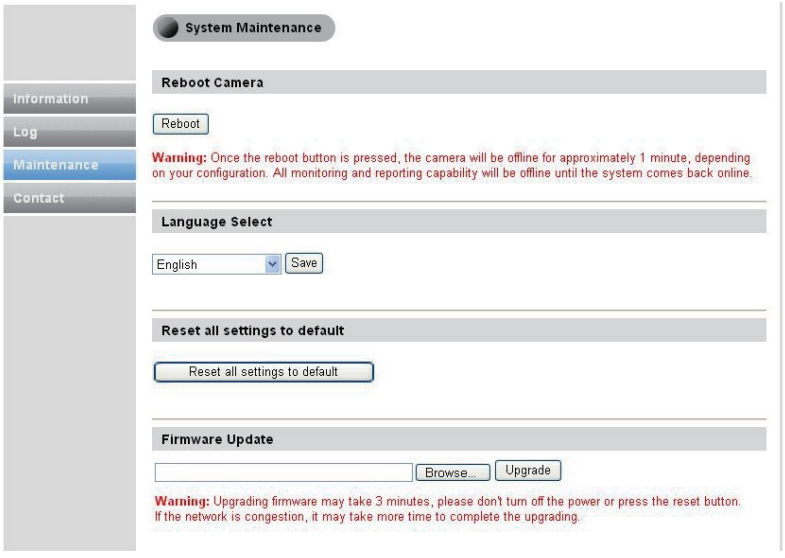

System Maintenance
Information
Log
Maintenance
Contact
Reboot Camera
Reboot
Warning: Once the reboot button is pressed, the camera will be offline for approximately 1 minute, depending on your configuration. All monitoring and reporting capability will be offline until the system comes back online.
Language Select
English
Save
Reset all settings to default
Reset all settings to default
Firmware Update
Browse...
Upgrade
Warning: Upgrading firmware may take 3 minutes, please don't turn off the power or press the reset button. If the network is congestion, it may take more time to complete the upgrading.

Figure 7-4. Firmware update

Chapter 8: Troubleshooting

During the course of installation, you may encounter various issues in regards to the usage of either the camera or the ComproView software. The following pages contain a list of troubleshooting procedures which should help you overcome any difficulties. The troubleshooting section is divided into four sections—initial setup(including hardware and software), ActiveX client, and remote viewing via Internet Explorer.

Initial Hardware / Software Setup

Installation

After you've successfully connected the power connector and network port of the IP camera, please ensure that you have the latest software & firmware available on our website (www.comprousa.com). Once the ComproView has been installed, you can use the included iWizard which can be found under Start -> Program Files -> ComproView.

Figure 8-1. Compro program folder

The iWizard will automatically scan for all of the available cameras on the network, even if they are not on the same subnet.

iWizard

The scanning for cameras generally takes around 1 minute to complete, and during the process, you will see the available cameras populating the list, as the figure blow shows.

Figure 8-2. Camera selection

Should the scanning report no found cameras, follow the troubleshooting procedure.

Hardware wiring check

1. Please check that the camera has been connected to either the wired or wireless network and has been powered on for over 1 minute. You can check the status of the IP camera by checking the front LED indicator.

Steady (Blue)	Blinking (Red)	Off
Successful connection to the network	The camera is unable to connect to the network	The unit is either not working or the LED indicator has been turned off.

Table 8-1. LED status

2. Please check if your computer has a successful connection to the network.

Computer is connected	Computer is not connected

Table 8-2. Windows network connection

3. If you are using the wireless network, please ensure that:
   a. the IP camera is connected to the correct wireless access point.
   b. you've correctly set the encryption type and key for the connection, when applicable. If you didn't use a router on your network, the default IP address for the camera will be 192.168.0.128.

Notice!
You can check the status of the connection by logging into your router à maintenance à log or similar wordings in your router.

Reset to the Factory Default Settings

After you've gone through the above steps, you should be able to use the iWizard Utility to scan for the camera you've just installed. If none of the above worked, please reset the camera and follow the above procedures again.

You can reset the camera to the default state in which it will be using the Ethernet port for connection and obtaining IP from the available local DHCP server. To reset the camera, refer to the steps below:

1. Press and hold the reset button (located rear panel) for about 10 seconds; when successful, you shall see the Status Indicator go off.
2. After about 5 more seconds, the Status Indicator comes on again. It means that the IP camera has been successfully restored to the factory default settings.
3. Please re-configure the Compro IP camera using the iWizard.

Once the camera is reset, it takes 1 minute to reboot. Please wait and start the IP Camera Utility later again to scan for the camera.

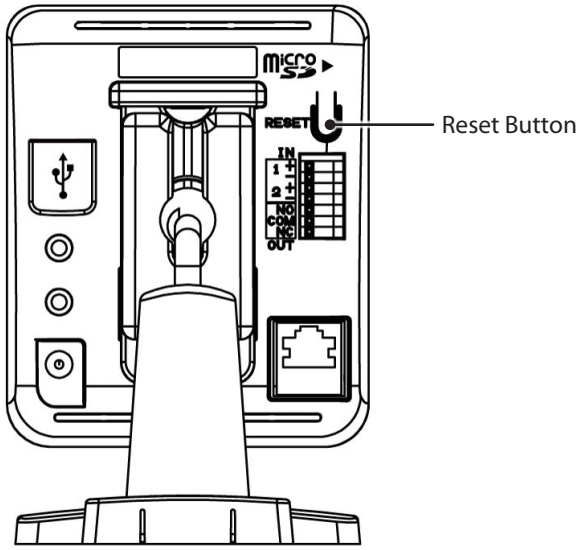


Figure 8-3. Reset button

Trouble with the ActiveX Client

Once launch the Internet Explorer and enter the camera's IP address in the address field, it will ask for the user name and password combination (the default is admin/admin, case sensitive).

Notice!
The ActiveX component developed by Compro currently only runs on Microsoft Internet Explorer 6 or greater. It does not function on other web browsers for the time being.

No user interface in the browser:

This could be related to three possible causes.

1. ActiveX was not installed: Please install the ActiveX component by following the instruction on the screen. This component must be installed. Otherwise you will not have access to the user interface.

Address
http://192.168.0.165/cgi-bin/view/index.cgi
This site might require software from: 'Compro Technology, Inc.'. Click here to install... ...

Figure 8-4. ActiveX warning

Internet Explorer - Security Warning
Do you want to install this software?
Name: USActiveX.cab
Publisher: Compro Technology, Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Figure 8-5. ActiveX installation

Internet Explorer - Security Warning
Do you want to install this software?
Name: ComproClientActivex.cab
Publisher: Compro Technology, Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Figure 8-6. ActiveX installation

2. ActiveX was installed but not enabled: Ensure that the ActiveX had been correctly registered with your Internet Explorer. Please check that you've got both the "ComproClientActivex" and "USActiveX" control components registered and enabled under Tools -> Manage Add-ons.

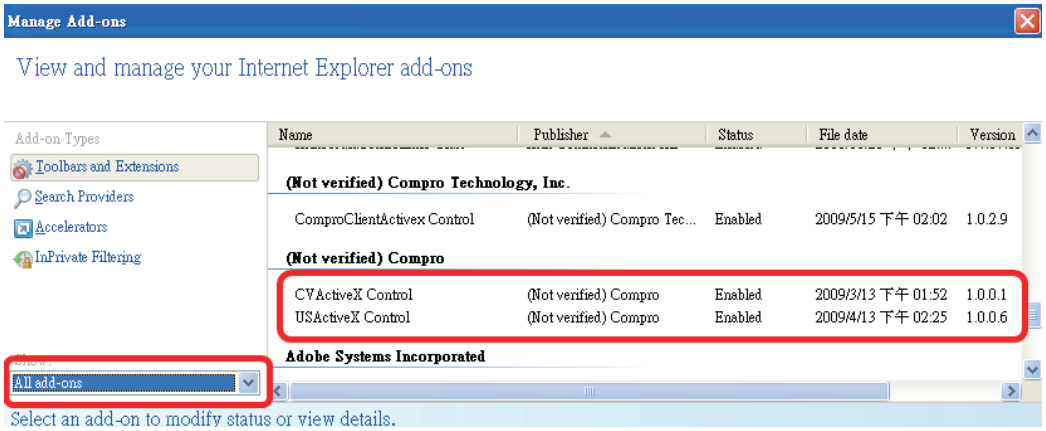


Figure 8-7. Add-on management

c. Inappropriate browser security setting: Please ensure that your security setting in Internet Explorer allows the installation of ActiveX component by adding the IP address of the camera to the list of trusted sites in Internet Explorer.

Figure 8-8. Browser security setting

If you've done all of the above but are still unable to obtain video / audio on the browser, please delete all of the files under (OS Drive):\Program Files\Compro Embedded\ and reinstall the ActiveX client. Finally, if you encountered the error where the browser returns "213 file not found", please restart your computer, which should help in this situation.

Remote Viewing via Internet Explorer

You may wish to check the video or audio of the IP camera from a remote location. The followings are the steps you will need to go through for successful viewing.

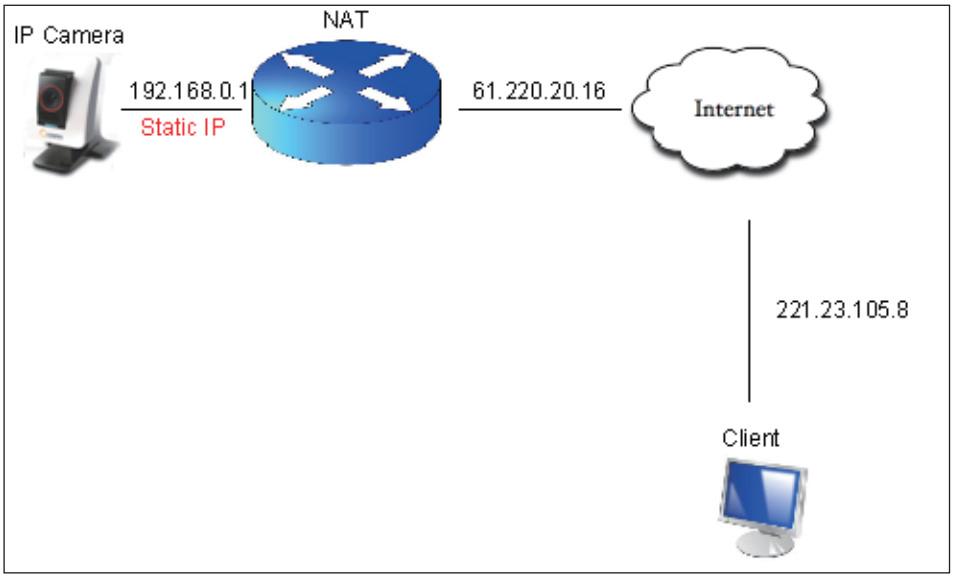


Figure 8-9. Remote viewing via browser

The figure above shows a typical connection setup in which:

- the IP camera has a static virtual IP address of 192.168.0.1
- the WAN IP address at the IP camera site is 61.220.20.16.
- the client (user) is trying to receive the video / audio stream remotely.

1. Please ensure that the camera's image quality setting stays within the bandwidth limit of your local network. You can check the camera's image quality setting in Setup à Video. If your quality setting exceeds your upload bandwidth limit, you will experience stuttering video or black and blank screen.

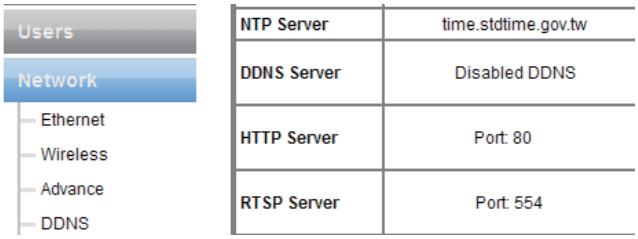


Figure 8-10. Detailed network setup

2. Check the ports used by the camera in Setup à Network and note down the HTTP and RTSP server ports, in this case, ports 80 and 554 respectively.
3. Please enable port forwarding on the router and allow traffic on ports the IP camera is using. You may need to consult the manufacturer of your router for setting details. Note: Your router may require a reboot after port forwarding is set. The following figure illustrates the settings you need to make in order to remotely view the IP camera.

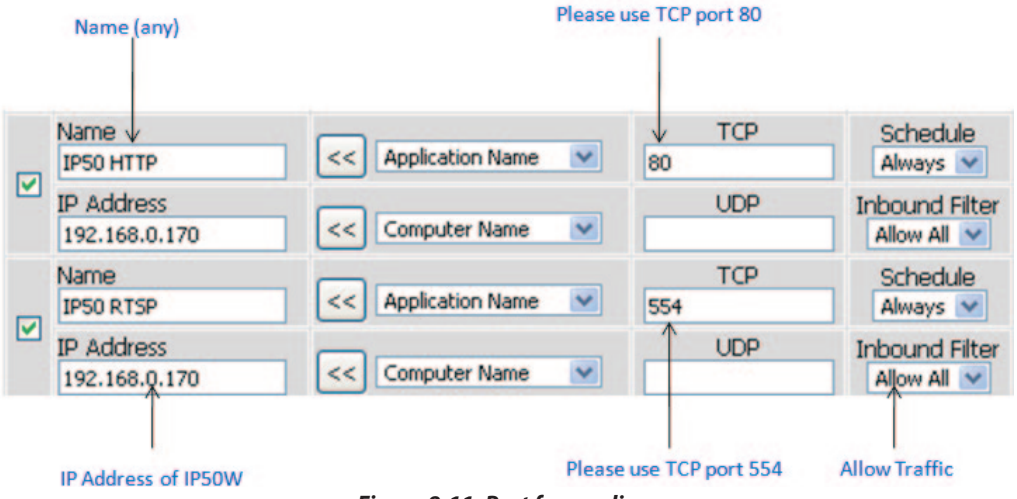


Figure 8-11. Port forwarding

4. Having taken the above steps, you should be able to log on to the camera from a remote location by entering the DDNS address or the static IP address in the location field of a web browser depending on your configuration. For example, in this case, you should enter http://61.220.20.16:80 into the location field of Internet Explorer to access the camera.

Notice!
If you have multiple cameras installed on a network, you will need to change the HTTP and RTSP port on the cameras manually so each one of them uses a different port. E.g. changing the HTTP and RTSP port for the 2nd camera to 81 and 554 respectively and accessing the 2nd camera by logging on to http://61.220.20.16:81.

DDNS Setup

DDNS allows you to link camera's IP address to a hostname with which you can access your camera on the Internet. If your camera system obtains IP address via DHCP mode, you need to enable DDNS feature under network setting and apply for a DDNS (Dynamic DNS), so the hostname can be obtained from Compro's free iDDNS service or by login on to the website of some service providers such as DynDNS or no-ip. After you have applied for a DDNS, please log in to the IP Camera's setup page, and look for [Network] > [DDNS] and provide all the required information..

Using Compro iDDNS Service

If you want to use Compro iDDNS service, please run the Compro iWizard and choose "Yes" in the Step 5 to set up iDDNS and then input the preferred address and click "Check Availability" to check whether the inputted address is being used. When successful, you can click "Create Shortcut" button to create a shortcut on your desktop for convenient access.

Step5
iDDNS Setup
Do you wish to setup the iDDNS which will allow you to view the camera remotely over the internet
Yes
No
Preferred Web Address:
iDDNS.org
Check Availability
Your preferred web address had already been used by another party. Please select another address!!
If you wanna create Shortcut on desktop, please click here
Create Shortcut
If you wish to use DynDDNS or No-IP for the DDNS service, please use the ActiveX interface which can be accessed by entering the camera's IP address into Microsoft Internet Explorer
Main Menu
Previous
Next
COMPRO

Figure 8-12. DDNS setup in iWizard

The iDDNS is a free DDNS service provided by Compro. If you are using floating IP, you need to apply for DDNS (Dynamic Domain Name Server) service to create a hostname that links to the IP address on your home or office network. This provides easy-to-remember URL for quick access anytime, anywhere. After successfully obtaining the iDDNS address, you only need to log on to http://xxx (your preferred address).iddns.org to access your IP camera on a web browser.

If your local LAN network and router sit behind a firewall, you have to set a HTTP port allowing inbound access. For example, if you set the http port "2001" for your IP camera, your IP camera address will be: http://xxx (your preferred address).iddns.org:2001

If you see the orange exclamation mark next to the HTTP or RTSP port field after system diagnosis completes, it means you have to set up the port forwarding on your router to enables access to the camera from external Internet. Refer to the "Remote Viewing via Internet Explorer" section of this chapter and look for "Port Forwarding". You may also need to consult the manufacturer of your router for detailed settings.

Symptoms, Causes and Solutions

Listed below are some other frequently asked questions and their answers.

Symptom	Possible Cause/Solution	Reference page(s)
Problem accessing from the browser.	**The camera is not powered on.** Make sure the camera has been powered on for over 1 minute and its LED status indicator is lit.	1-5
	The Ethernet cable is not firmly connected to the camera. Check if the Ethernet cable is securely connected to the Ethernet port of the camera and to the network switch. When camera successfully established connection, the LED status indicator appears blue.	
	The entered IP address is incorrect. Check if the IP address you entered matches the IP address of your camera. If you are certain that your camera is configured with the same subnet mask as that of your PC, you can run the iWizard to scan the camera on your network and you will see the your camera's IP address on your network (disconnect other cameras first). If you're not sure whether your camera is on the same subnet with your PC, reconnect your camera to your PC directly (configure the IP address of your PC as 192.168.0.X), and run iWizard again to reconfigure its subnet address to match that of your PC. Then reconnect it back to the router and run iWizard again.	
	The PC is not connected to the LAN network. Please check if your computer has a successful connection to the network. When successfully connected, your computer will display the icon below on the task bar. 	
	The wireless connection is broken. If you intend to access your camera by way of wireless connection, please check that: 1. the IP camera is connected to the correct wireless access point. 2. you have correctly set the encryption type and key for the wireless connection. If you didn't use a router on your network, the default IP address for the camera will be 192.168.0.128. You can check the status of the connection by logging on to your router's maintenance page or page titled with similar wordings. Consult with the manufacturer of your router for detailed instruction.	

Symptom	Possible Cause/Solution	Reference page(s)
Successful access on local network but having problem accessing from Internet.	**The entered hostname/IP address is incorrect.** Make sure you entered the correct hostname (if you use iDDNS) or the WAN IP address of your camera in the location field of the web browser.	
	The LAN network is not connected to Internet. You need to have access to the Internet when trying to view your network camera remotely. Equally, your camera installed on a LAN network also needs to have access to the Internet for your camera to be accessed remotely. Check if you can browse the Internet on your LAN network. If not, contact your network administrator for assistance.	
	The camera's WAN IP address has changed but yet to be updated into DNS cache. If you use DDNS service, the information of your camera's IP address and the domain name the IP address is linked to and is stored in the DNS cache. The cache is used to retrieve the IP information by the DNS server which translates entered hostname into the camera's IP address. Though the information is updated every few minutes (determined by the value of TTL, Time to Live), occasionally the DNS information changes (e.g. your camera acquires new IP) but the old information is still stored in the cache, resulting in connection failure. When this happens, try waiting a few minutes for the new IP information to be updated onto DNS server and then retry connection, or try to decrease the TTL value. If it still doesn't work, refer to other possible causes and solutions, or contact Compro for technical support.	
	The router's configuration does not allow incoming traffic to the camera. If you want to make your camera located on a LAN network accessible from the Internet, you need to enable port forwarding on your router and allow incoming traffic for the HTTP and RTSP ports your camera is using (your router may require a reboot after port forwarding is set). Refer to the "Remote Viewing via Internet Explorer" section in the user manual for detailed information. If you don't know how to enable port forwarding on the router, consult the manufacturer of your router for instruction.	

Symptom	Possible Cause/Solution	Reference page(s)
Network diagnosis shows error icon.	**Network connection error.** The network connection test verifies if the camera has successfully connected to the LAN network. When the diagnosis result shows a red exclamation mark icon ( ) for network connection, it means the cameras fails to connect to LAN network. Check if the LAN cable is securely connected to the Ethernet port of the camera and to your hub/router, or check if the LAN cable is functioning normally. Also check whether the gateway address your camera uses is identical to that of your router.	
	Internet connection error. The Internet connection test verifies if the camera is connected to the Internet. When the diagnosis result shows a red exclamation mark icon ( ) for Internet connection, it may represent a failed connection to the LAN network. It could also be caused by inappropriate settings on your router that makes your router unable to connect to the Internet, such as wrong PPPoE user name/password, or wrong WAN IP setting (when your ISP provide you with fixed IP address). See if your PC connected to your router can also access the Internet. If not, consult your ISP/ router manufacturer for correct Internet setting. If your router can connect to the Internet but your camera connected to your router cannot, check whether the IP, subnet mask and gateway is correctly set on your camera.	
	HTTP/RTSP port error. HTTP port is used for transmitting web pages, commands over the Internet. RTSP port is used for sending video/audio data. These two test items will fail whenever port forwarding is not enabled. Make sure you have enabled port forwarding on your router and have allowed traffic on ports your IP camera is using. Refer to the "Remote Viewing via Internet Explorer" section of this manual for more information.	
Problem using DDNS serice.	**The user information is incorrect.** Go to main setup page. On the left menu, select [Network] > [DDNS], and check if the ID and password is correct. Also check with your service provider to see if your service account is active.	
	The entered address is incorrect. Go to main setup page and select [Network] > [DDNS] on the left menu, and then check if the iDDNS service is enabled and you have the correct address.	
	Incoming traffic to the network camera is not allowed. Please refer to the "Remote Viewing via Internet Explorer" section in the troubleshooting chapter of this manual and look for instruction on enabling port forwarding.	

Symptom	Possible Cause/Solution	Reference page(s)
Part of image becomes pixelated / Square color blocks are seen	**Network bandwidth is insufficient.** Without sufficient bandwidth, video quality will deteriorate and image errors like pixelation or frame-drop may occur. When you view your camera remotely from the Internet, your camera needs sufficient upload bandwidth to transmit video stream and you need sufficient download bandwidth to download video stream at the remote location. To gain satisfactory video quality, ensure there is sufficient upload bandwidth available to your network camera by taking the following actions: 1. Contact your Internet Service Provider (ISP) to confirm the upload/download speed limit of your service. If the bit rate of the video stream is set at 512Kbps or higher but your Internet service only provides a max. of 512Kbps upload bandwidth, then try to lower the bit rate setting in [Setup] > [Video]. 2. Run a network speed diagnostics on WebVUer to determine the bandwidth level of the currently connected network. To do so, log in to your camera using WebVuer and go to [Setup] > [Network] > [Network Bandwidth]. When the speed diagnostics is done, the WebVUer will advise you of the appropriate setting. Consider the following action to ensure sufficient download bandwidth at your remote viewing location: 1. Contact your Internet Service Provider (ISP) to confirm the upload/download speed limit of your service. If the bit rate of the video stream is set at 3Mbps or higher but your Internet service only provides a max. of 2Mbps download bandwidth, then try to lower the bit rate setting in [Setup] > [Video]. 2. Upgrade to Gigabit network switch. Regular 10/100 Mbps network switch cannot handle multiple megapixel channels, thus you may consider upgrading to Gigabit network switch when building up your network infrastructure. 3. While you are viewing the network camera remotely, shutting down any other applications that are also consuming the network bandwidth in the background.	

Symptom	Possible Cause/Solution	Reference page(s)
Cannot store recordings on microSD card.	**The microSD card is not inserted firmly into position.** Remove the memory card and re-insert it back to the card slot. To verify your SD card is properly installed, go to [Setup] > [Recording Setup] > [Micro SD], and check if [SD Card Status] and [SD Card Capacity] shows correct information. If "not detected" is shown, remove and re-insert the card again, and refresh the WebVUer, and verify again.	
	The **microSD card is not properly formatted.** Go to main setup page, and choose [Recording Setup] from the left menu. Choose [Micro SD] for the "Destination" field, and then press the [Format] button. If it still doesn't function properly, try storing still snapshots onto the SD card. Failure in storing snapshots often suggests problem with the memory card.	
	The **microSD card is not supported by the device.** Your camera may not fully support all brands of high capacity memory cards. Refer to the SD card compatibility list found in the appendix of this manual.	
	The speed class of SD card does not meet the requirement. You might experience minor issue in video recording when your SD card does not meet the writing speed requirement. Compro recommends using class 4 or above SD card for video recording.	
	A motion detection region has not been configured for recording triggered motion events. If you want to record video clips of detected motion to SD card, you need to set at least a motion detection region before setting up event-based recording in Recording Setup.	

Contacting Compro Technical Support

Before you submit an email for support, please check the troubleshooting section in the user manual. You may fill out the form (http://comprousa.com/en/form.htm) or directly email to support@comprousa.com.

Compro Technology Inc.
www.comprousa.com
Tel. +886 2 2918 0169, Fax +886 2 2915 2389
4/F, No.12, Alley 6, Lane 45, Pao Shin Road
Hsintein City, Taipei, Taiwan.

Chapter 9: Technical Specifications

Category		IP70	IP60	IP55
Camera	Image Sensor	1/3" CMOS Megapixel sensor	1/4" CMOS Megapixel sensor	
	Lens	• Focal Length: 4.0 mm • Max Aperture Ratio: F1.5 • Fixed iris	• Focal Length: 4.0 mm • Max Aperture Ratio: F1.5 • Fixed iris	
	Zoom	4x digital zoom		
	Angle of View	60° horizontal	46° horizontal	
	Focusing Range	0.5m ~ INF		
	Minimum Illumination	IR Mode: 0 lux; using built-in IR light in darkness up to 8m Color Mode: 1.0 lux	Color Mode: 1.0 lux	
	Shutter Time	1/5 ~ 1/16000 Sec		
Video	Video Compression	• H.264 (MPEG-4 Part 10) • Motion JPEG • MPEG-4 Part 2	• H.264 (MPEG-4 Part 10) • Motion JPEG • MPEG-4 Part 2	• Motion JPEG • MPEG-4 Part 2
	Resolutions	160x120, 320 x 240, 640 x 480, 1280 x 1024		
	Frame Rate	• Up to 30 frames at 640 x 480 • Up to15 frames at 1280 x 1024		
	Video Streaming	Dual H.264, MJPEG or MPEG-4 video streams		Dual MJPEG and MPEG-4 video streams
	Image Settings	• Adjustable image size and quality • AGC, AWB, AES • Configurable brightness, saturation and sharpness		
Audio	Audio Communi-cation	Two-way audio with built-in MIC (S/N ratio 58 dB, 50-10000hz) and speaker (660mv)		
	Audio compression	G.711 PCM 64Kbit/sec		
	Audio input / output	MIC input / Audio out		
Network	Security	User ID / Password protection		
	Supported Protocols	DDNS (iDDNS) / PPPoE / HTTP Server / DHCP Client /NTP Client /DNS Client / FTP Client / SMTP Client / ARP / ICMP/IPV4/ UDP / TCP/IP		
Firmware	Firmware	• Support UPnP • Support online firmware update		

Category		IP70	IP60	IP55
Software	ComproView	• Multiple channel management • iDDNS service for dynamic IP and desktop shortcut creation • Recording search and playback • Scheduled and event driven management • Smart Detection		
Web Browser	Internet Explorer (ActiveX)	• Monitor the current condition of the monitor area via Internet Explorer • Capture a still image and save it in JPG format on PC • Alarm and event management: FTP, I/O alarm, server notification and email		
	Supported Devices	• PC, Laptop, Nettop, MID with IE/ActiveX support. • Mobile phone, iphone/ipod, PDA support in MJPEG mode.		
Mobile Phone	MJPEG Mode	Viewing of camera image via phone browsers		
	3GPP Mode	Viewing of camera image via 3G phones (3GPP Streaming)		
General	Operating Condition	5 °C ~ 40 °C		
	Power Supply	DC 5V/2A		
	System Require-ments	• Computer with 1.7GHz processor and 512 MB memory or above • Supported Operating Systems: Windows XP SP3, Vista SP1, Windows 7 x86/x64		
	Included Accessories	• Software CD (Manual included) • Start up Guide • Power adaptor • Network cable • Screws for ceiling mounting • Screw mount		
	Dimensions	84 x 124.5 x 91.5 mm (including bracket)		

Chapter 10: Appendix

IP55 Available Video Modes

Stream 1:

Resolution	SXGA (1280x1024)	VGA (640x480)	QVGA (320x240)	QQVGA (160x120)
Codec	MPEG-4	MPEG-4	MPEG-4	MPEG-4
Frame rate	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5
Quality	3, 1.5, 1Mbps	3, 1.5, 1Mbps; 512k, 256k, 128kbps	3, 1.5, 1Mbps; 512k, 256k, 128k, 64kbps	3, 1.5, 1Mbps; 512k, 256k, 128k, 64kbps

Stream 2:

Resolution	VGA (640x480) (Not available in 3GPP mode)	QVGA (320x240)	QQVGA (160x120)
Codec	MPEG-4	MPEG-4	MPEG-4
Frame rate	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5
Quality	MPEG-4: 3, 1.5, 1Mbps, 512k, 256k, 128kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest	MPEG-4: 3, 1.5, 1Mbps, 512k, 256k, 128k, 64kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest	MPEG-4: 3, 1.5, 1Mbps, 512k, 256k, 128k, 64kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest

IP60 Available Video Modes

Stream 1:

Resolution	SXGA (1280x1024)	VGA (640x480)	QVGA (320x240)	QQVGA (160x120)
Codec	MPEG-4, H.264	MPEG-4, H.264	MPEG-4, H.264	MPEG-4, H.264
Frame rate	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5
Quality	3, 1.5, 1Mbps	3, 1.5, 1Mbps; 512k, 256k, 128kbps	3, 1.5, 1Mbps; 512k, 256k, 128k, 64kbps	3, 1.5, 1Mbps; 512k, 256k, 128k, 64kbps

Stream 2:

Resolution	VGA (640x480) (Not available in 3GPP mode)	QVGA (320x240)	QQVGA (160x120)
Codec	MPEG-4, H.264	MPEG-4, H.264	MPEG-4, H.264
Frame rate	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5
Quality	MPEG-4, H.264: 3, 1.5, 1Mbps, 512k, 256k, 128kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest	MPEG-4, H.264: 3, 1.5, 1Mbps, 512k, 256k, 128k, 64kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest	MPEG-4, H.264: 3, 1.5, 1Mbps, 512k, 256k, 128k, 64kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest

IP70 Available Video Modes

Stream 1:

Resolution	SXGA (1280x1024)	VGA (640x480)	QVGA (320x240)	QQVGA (160x120)
Codec	MPEG-4, H.264	MPEG-4, H.264	MPEG-4, H.264	MPEG-4, H.264
Frame rate	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5
Quality	3, 1.5, 1Mbps	3, 1.5, 1Mbps; 512k, 256k, 128kbps	3, 1.5, 1Mbps; 512k, 256k, 128k, 64kbps	3, 1.5, 1Mbps; 512k, 256k, 128k, 64kbps

Stream 2:

Resolution	VGA (640x480) (Not available in 3GPP mode)	QVGA (320x240)	QQVGA (160x120)
Codec	MPEG-4, H.264	MPEG-4, H.264	MPEG-4, H.264
Frame rate	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5	Turbo Picture mode: 15, 10, 7.5, 5 Motion Adaptive mode: 30, 25, 20, 15, 10, 7.5, 5
Quality	MPEG-4, H.264: 3, 1.5, 1Mbps, 512k, 256k, 128kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest	MPEG-4, H.264: 3, 1.5, 1Mbps, 512k, 256k, 128k, 64kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest	MPEG-4, H.264: 3, 1.5, 1Mbps, 512k, 256k, 128k, 64kbps; Motion-JPEG: Highest, Higher, High, Medium, Low, Lower, Lowest

SD Card Compatibility Table

Below table shows microSD cards supported by Compro Network Cameras. Compro recommends SD card of Class 4 or higher.

Camera Model	Card Type	Tested and Compatible Cards
IP55	microSD/SDHC	AData 2GB (AUSD2GZ-R) Kingston 2GB (SD-C02G Japan) SanDisk 2GB (SDSDQ-2048-P36M) SanDisk 2GB (SDSDQ-2048) SanDisk 8GB (SDSDQ-8192-P36M)
IP60	microSD/SDHC	
IP70	microSD/SDHC	
IP540/IP540P	microSD/SDHC	
IP570/570P	microSD/SDHC	
IP530/530W	microSD	microSD 1GB

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